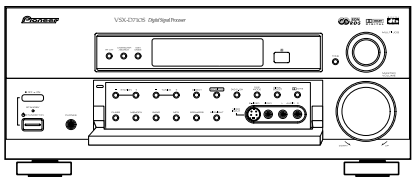
Service Manual



ORDER NO.
RRV2432

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-D710S

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	VSX-D710S		
MYXJIEW	◯	AC220-230V	
MYXJIGR	◯	AC220-230V	
MVXJI	◯	AC230V	

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PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS SERVICE, INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER EUROPE NV Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936

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T – ZZK MAR. 2001 Printed in Japan

1. SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

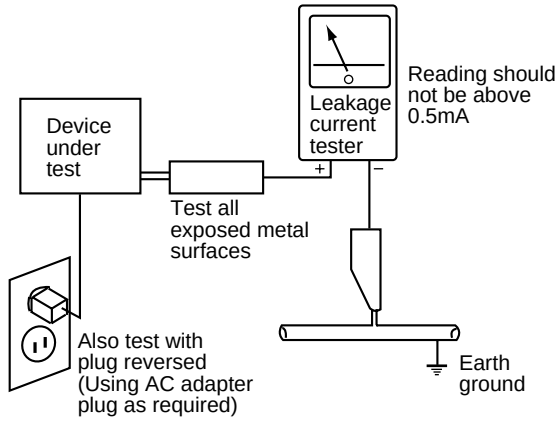
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Reading should not be above 0.5mA
Leakage current tester
Device under test
+
–
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

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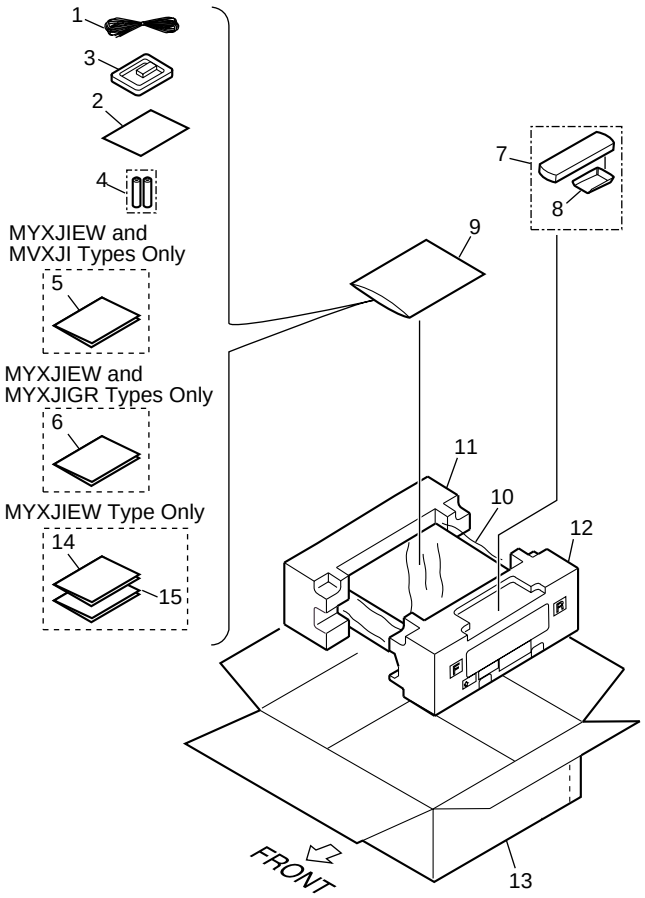
2. EXPLODED VIEWS AND PARTS LIST

NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
● *Screws adjacent to ▼ mark on the product are used for disassembly.*

2.1 PACKING



(1) PACKING PARTS LIST

Mark	No.	Description	Part No.
	1	FM Wire Antenna	ADH7005
NSP	2	Warranty Card	ARY7022
	3	AM Loop Antenna	ATB7009
NSP	4	Dry Cell Battery (R6P, AA)	VEM-013
	5	Operating Instructions (English)	See Contrast table (2)
	6	Operating Instructions (German)	See Contrast table (2)
	7	Remote Control Unit	XXD3029
	8	Battery Cover	XZA3002
NSP	9	Polyethylene Bag ($0.03 \times 230 \times 340$)	Z21-038
	10	Packing Sheet	AHG7069
	11	Left Pad R4	XHA3024
	12	Right Pad R4	XHA3025
	13	Packing Case 710/MY	XHD3151
	14	Operating Instructions (Dutch/Swedish/Portuguese)	See Contrast table (2)
	15	Operating Instructions (French/Italian/Spanish)	See Contrast table (2)

(2) CONTRAST TABLE

VSX-D710S/MYXJIEW, MYXJIGR and MVXJI are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.			Remarks
			VSX-D710S /MYXJIEW	VSX-D710S /MYXJIGR	VSX-D710S /MVXJI	
	5	Operating Instructions (English)	XRB3005	Not used	XRB3005	
	6	Operating Instructions (German)	XRC3031	XRC3031	Not used	
	14	Operating Instructions (Dutch/Swedish/Portuguese)	XRC3032	Not used	Not used	
	15	Operating Instructions (French/Italian/Spanish)	XRC3033	Not used	Not used	

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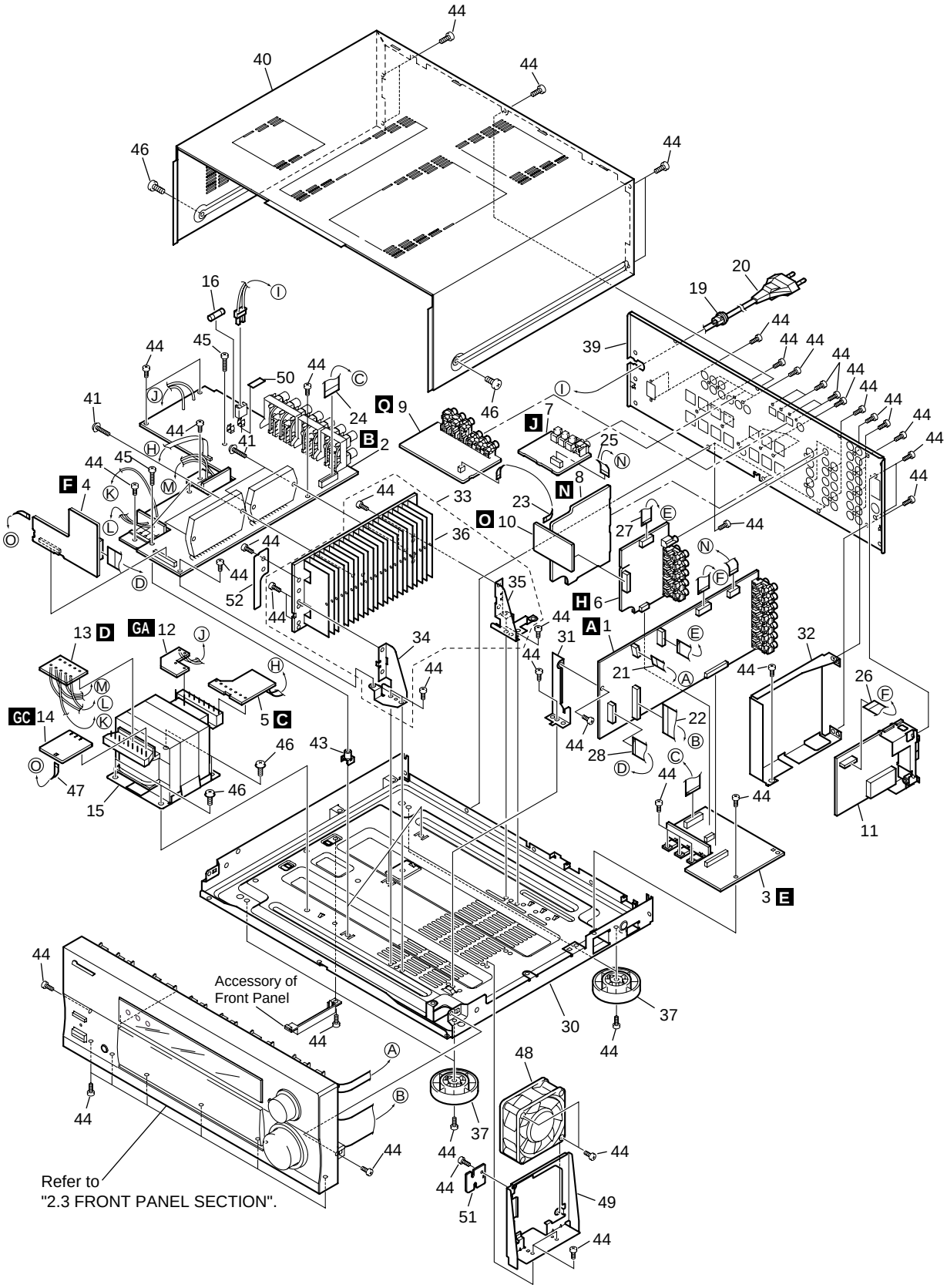
2.2 EXTERIOR SECTION



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(1) EXTERIOR SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	D.D & INPUT Assy	XWX3027
	2	AMP&PRIMARY Assy	XWZ3377
	3	REGULATOR Assy	XWZ3385
	4	AMP INPUT Assy	XWZ3387
	5	TRANS 2 Assy	XWZ3403
	6	VIDEO&6CH IN Assy	XWZ3334
	7	DIGITAL IN Assy	XWZ3361
	8	S. VIDEO Assy	XWZ3362
	9	COMPONENT Assy	XWZ3365
	10	BOARD TO BOARD Assy	XWZ3370
	11	FM/AM TUNER Unit	AXX7048
NSP	12	TRANS 1 Assy	XWZ3390
NSP	13	TRANS 3 Assy	XWZ3392
	14	TRANS 4 Assy	XWZ3369
⚠	15	Power Transformer (T1) (AC220-230V)	XTS3046
⚠	16	Fuse (FU1 : T2.5A)	REK1026
	17	• • • • • •	
	18	• • • • • •	
	19	Strain Relief	CM-22B
⚠	20	AC Power Cord	See Contrast table (2)
	21	FFC (J32 : 19P/30V) (D.D & INPUT CN103 ↔ FRONT CN401)	XDD3054
	22	FFC (J31 : 33P/30V) (D.D & INPUT CN102 ↔ FRONT CN402)	XDD3055
	23	FFC (J38 : 5P/30V) (BOARD TO BOARD CN392 ↔ COMPORNENT CN5501)	XDD3056
	24	FFC (J36 : 22P/30V) (REGULATOR CN801 ↔ AMP&PRIMARY CN53)	XDD3057
	25	FFC (J37 : 6P/30V) (D.D & INPUT CN1501 ↔ DIGITAL IN CN1901)	XDD3058
	26	FFC (J34 : 13P/30V) (D.D & INPUT CN105 ↔ FM/AM TUNER UNIT)	XDD3059
	27	FFC (J33 : 14P/30V) (D.D & INPUT CN104 ↔ VIDEO&6CH IN CN303)	XDD3060
	28	FFC (J35 : 17P/30V) (D.D & INPUT CN106 ↔ AMP INPUT CN254)	XDD3072
	29	• • • • • •	
NSP	30	Under Base 409	ANA7094
	31	PCB Angle	ANG7253
	32	Shield R3	ANG7277
NSP	33	Heat Sink Assy R4BX	XNH3023
	34	Heat Sink Angle F	ANG7251
	35	Heat Sink Angle R	ANG7252
NSP	36	Heat Sink R4BX	XNH3022
	37	Insulator	PNW2766
	38	• • • • • •	
	39	Rear Panel 710/MY	XNC3072
	40	Bonnet Case	XZN3112
	41	Screw	ABA7043
	42	• • • • • •	
	43	PCB Mold	AMR2533
	44	Screw	BBZ30P080FMC
	45	Screw	BBZ30P200FMC
	46	Screw	FBT40P080FZK
	47	FFC (J22 : 3P/30V) (TRANS 4 CN891 ↔ AMP INPUT CN251)	XDD3061
	48	Fan Motor	XXM3002
	49	Fan Holder R4	XNG3040
NSP	50	Fuse Card	AAX7277
NSP	51	Binder Assy	XWZ3401
NSP	52	Hold Assy	XWZ3402

(2) CONTRAST TABLE

VSX-D710S/MYXJIEW, MYXJIGR and MVXJI are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.			Remarks
			VSX-D710S /MYXJIEW	VSX-D710S /MYXJIGR	VSX-D710S /MVXJI	
⚠	20	AC Power Cord	VDG1077	VDG1077	VDG1076	

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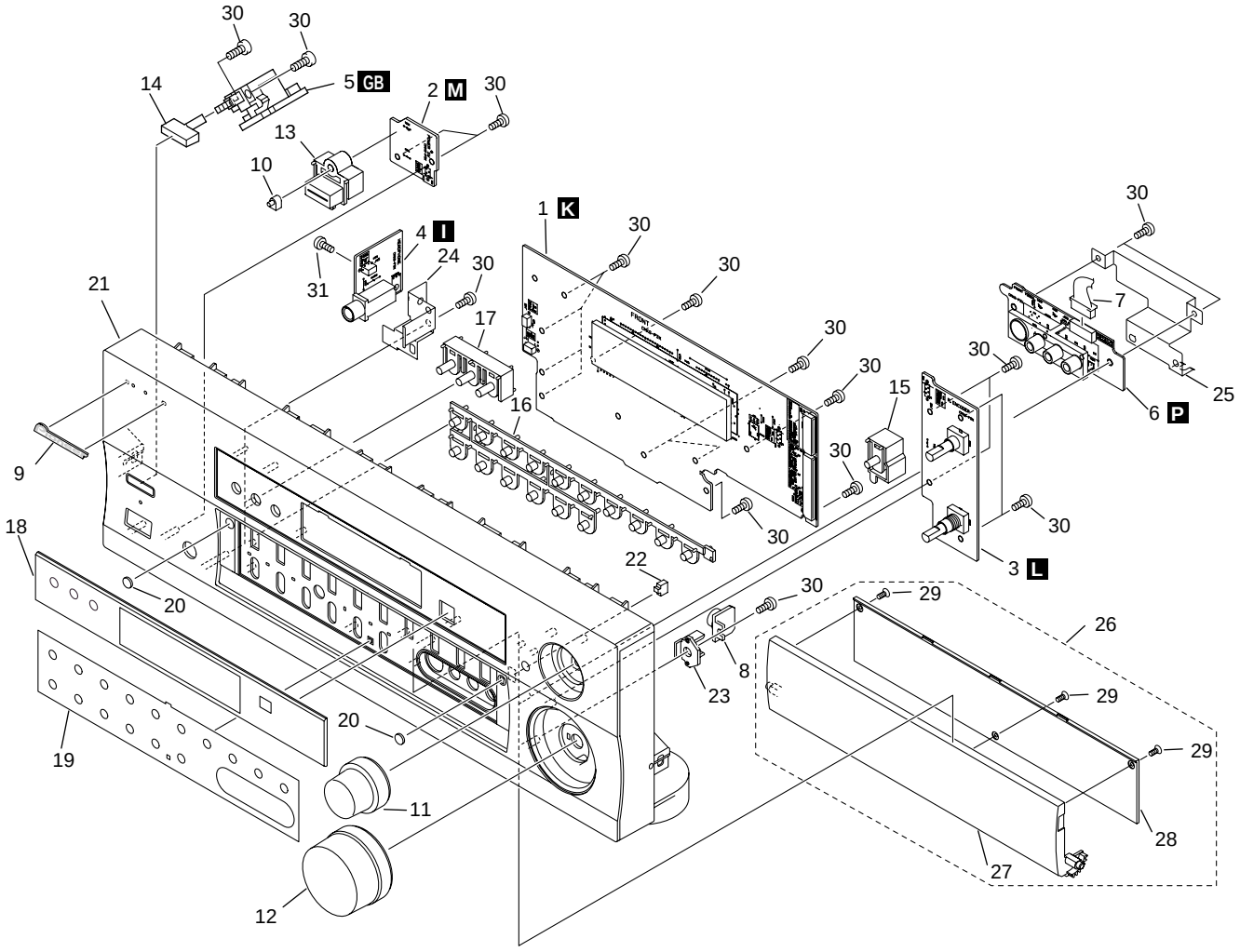
2.3 FRONT PANEL SECTION



● FRONT PANEL SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	FRONT Assy	XWZ3341
	2	POWER SW Assy	XWZ3352
	3	R. ENCODER Assy	XWZ3353
	4	H.P. Assy	XWZ3356
	5	MECHA SW Assy	XWZ3358
	6	FRONT VIDEO Assy	XWZ3359
NSP	7	8P Shield Cable	XDX3012
	8	Damper Assy	AXA7052
	9	Name Plate	PAM1776
	10	LED Lens	PNW2019
	11	Select Knob R4B	XAB3008
	12	Volume Knob R4B	XAB3011
	13	Power Button R4B	XAD3062
	14	Power Button M	AAD7442
	15	Jog Button R4B	XAD3065
	16	Door Button R4B	XAD3070
	17	RDS Button R4B	XAD3072
	18	Display Panel W/MY	XAK3171
	19	Button Cover R4B	XAK3178
	20	Cushion R4B	XED3001
	21	Front Panel 710/MY	XMB3036
	22	Magnet 35	AMF7007
	23	Holder L R4	XMR3016
	24	Earth Plate A R4	XNG3044
	25	Earth Plate B R4	XNG3045
NSP	26	Door Assy R4B	XXG3068
	27	Door R4B	XAK3173
	28	Door Cover R4B	XAK3175
	29	Screw	XBA3001
	30	Screw	PPZ30P080FMC
	31	Screw	BBZ30P080FMC

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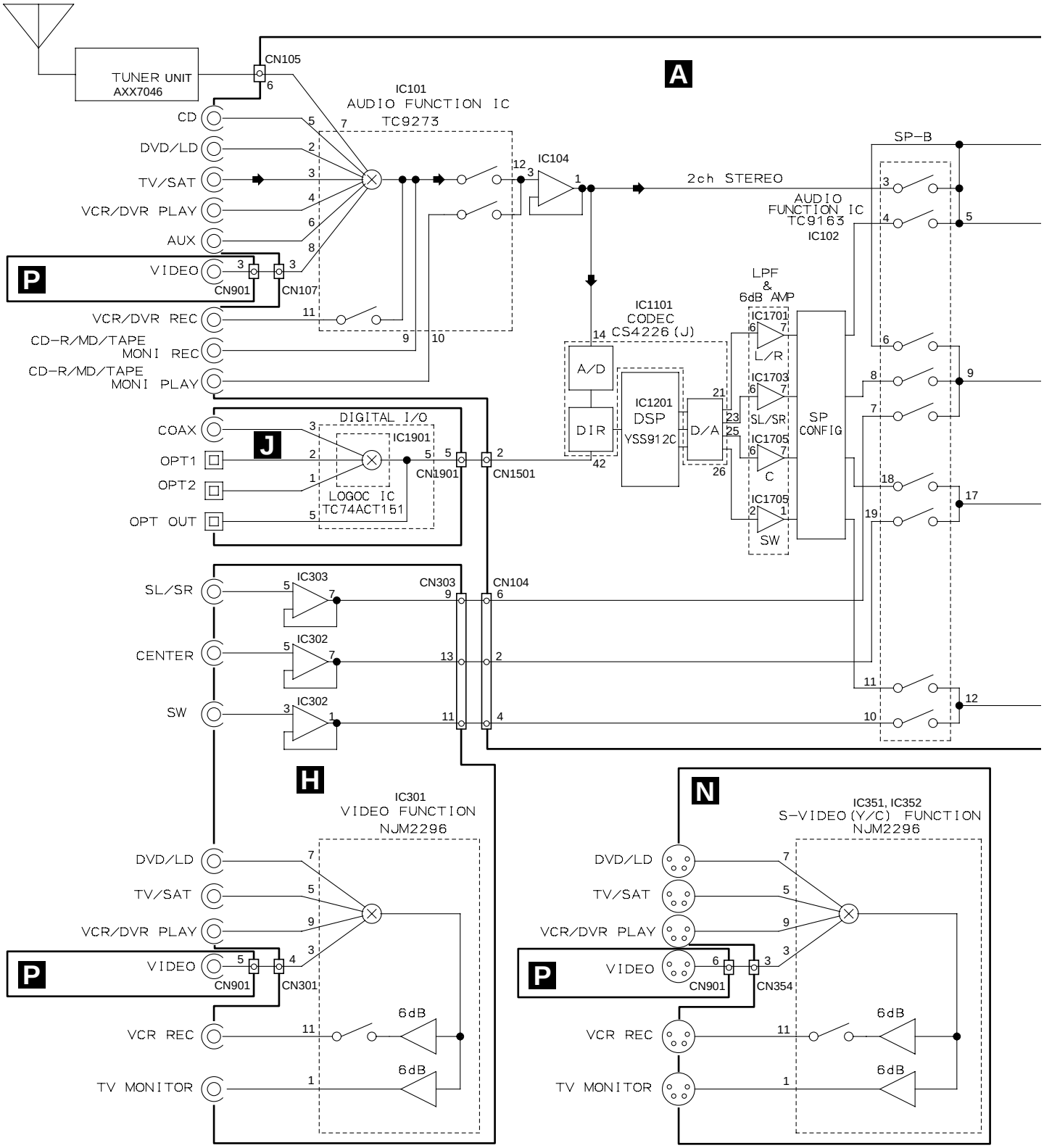
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM



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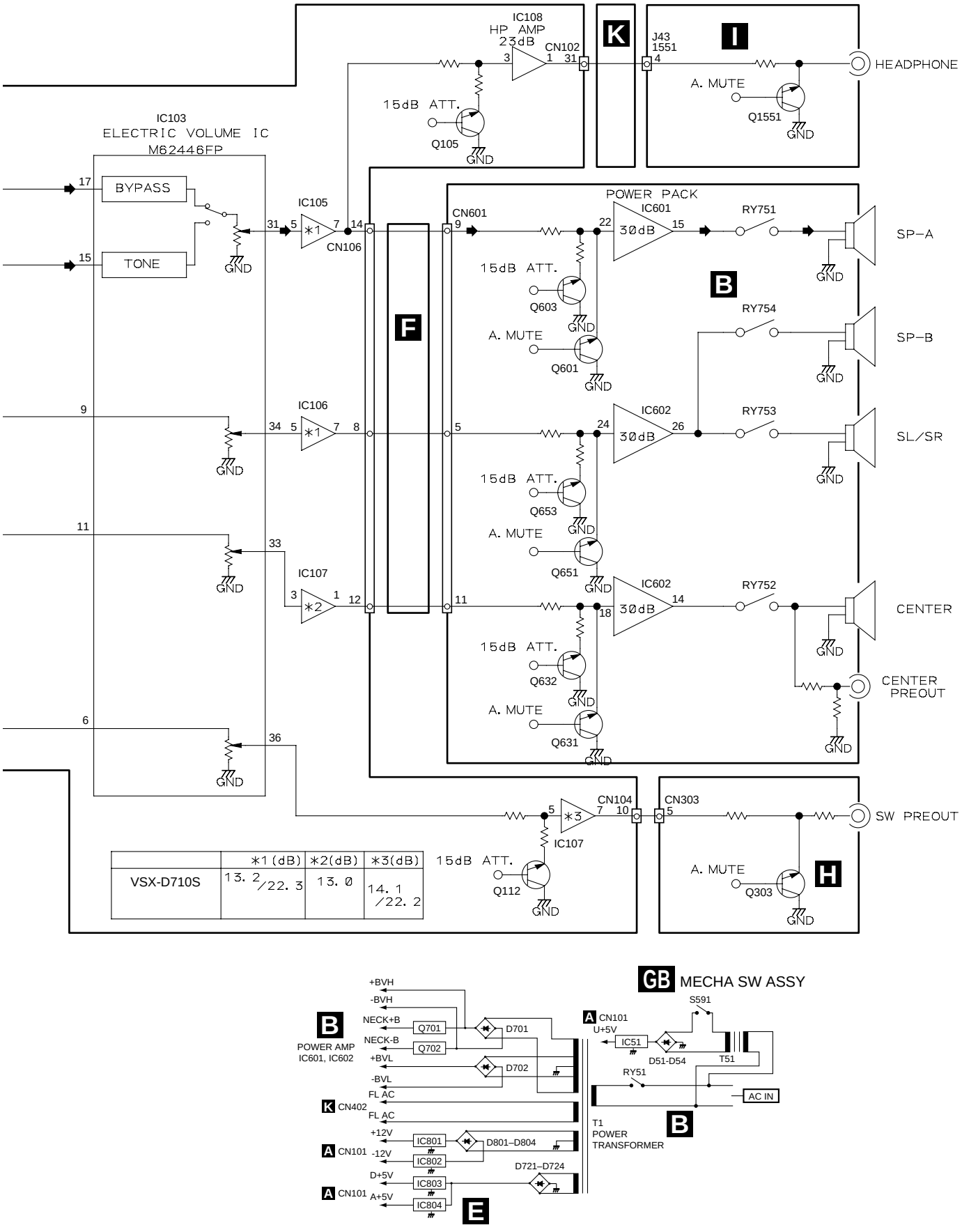

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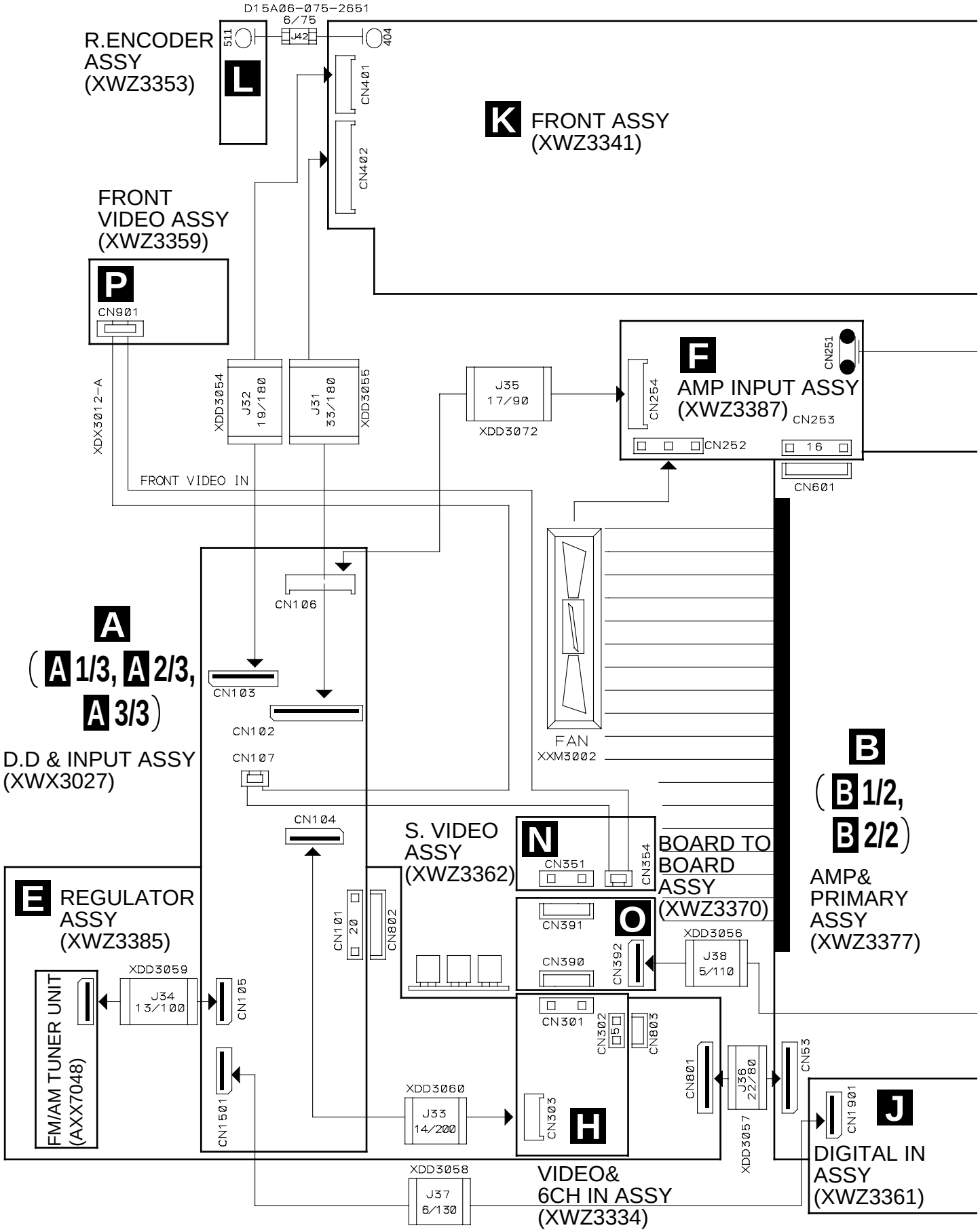
3.2 OVERALL WIRING CONNECTION DIAGRAM



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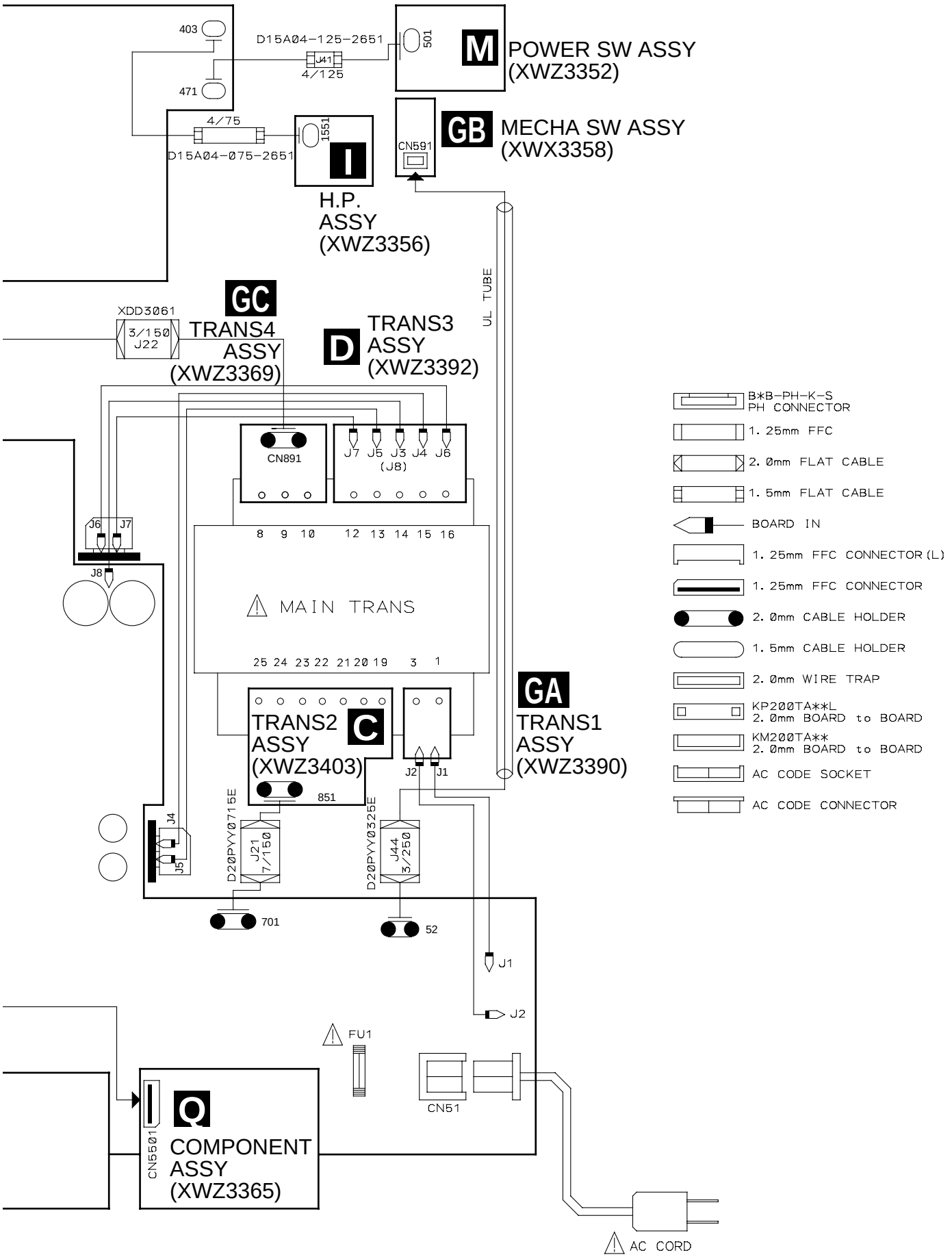
Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".



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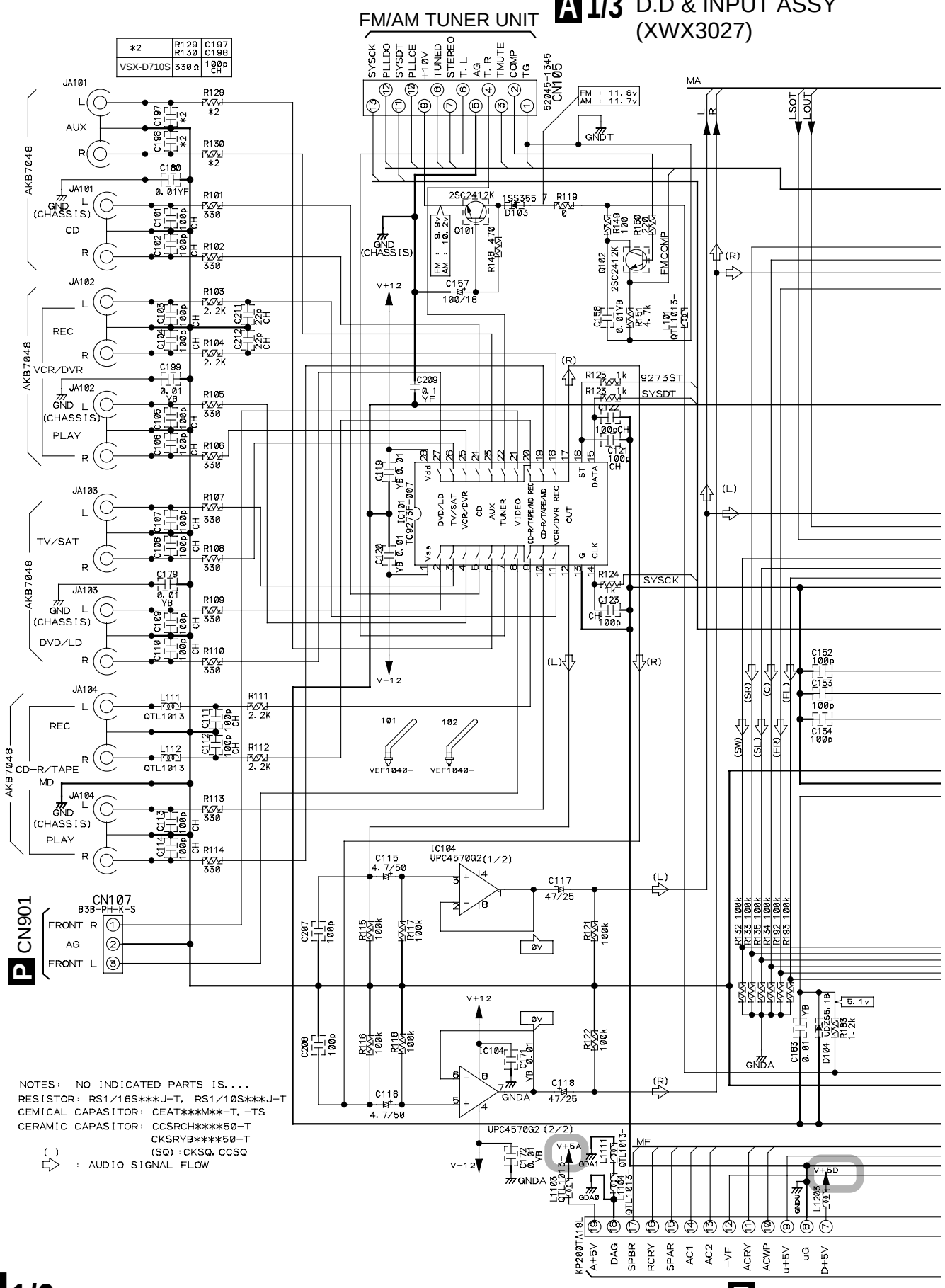
3.3 D.D & INPUT ASSY (1/3)



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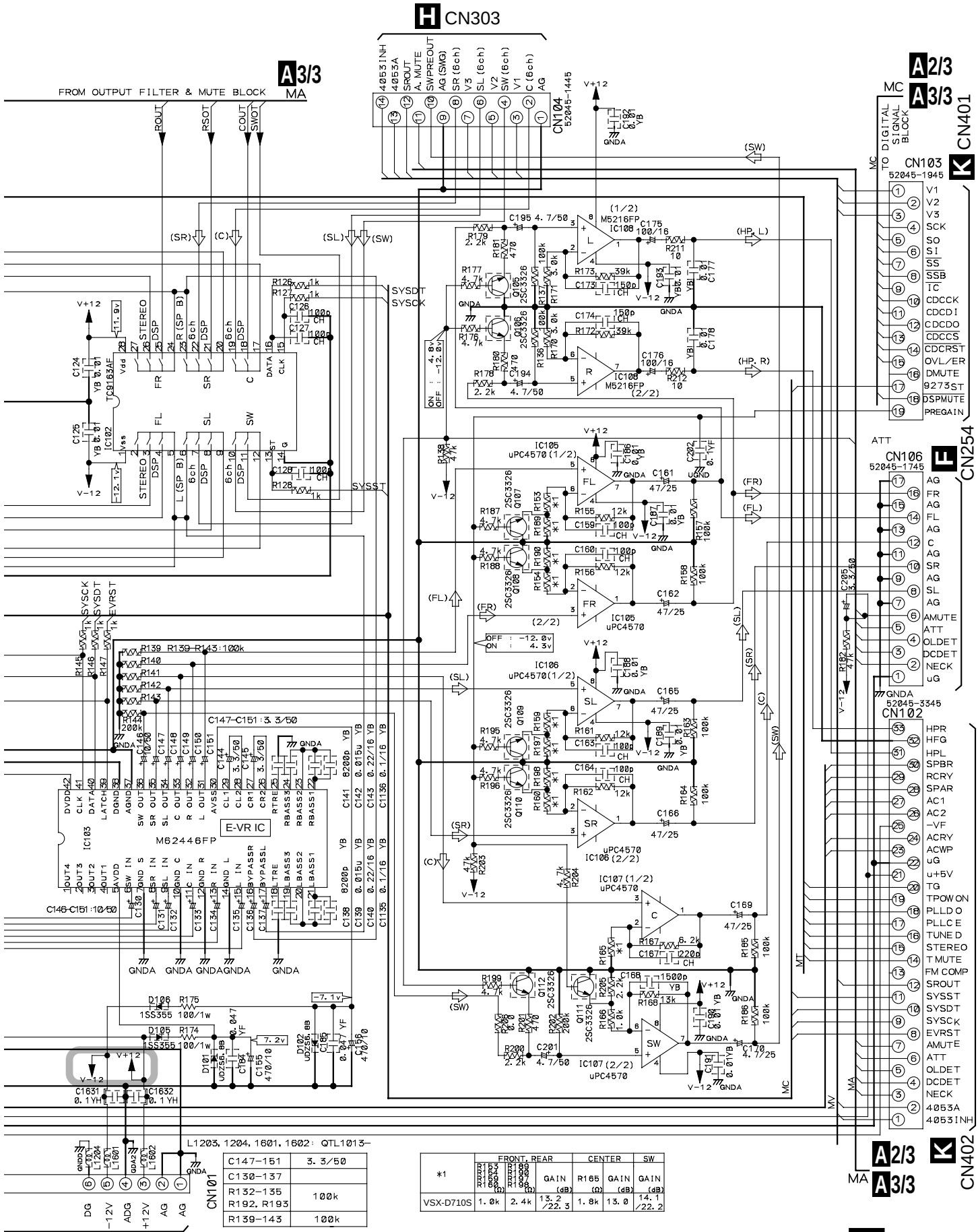
: The power supply is shown with the marked box.



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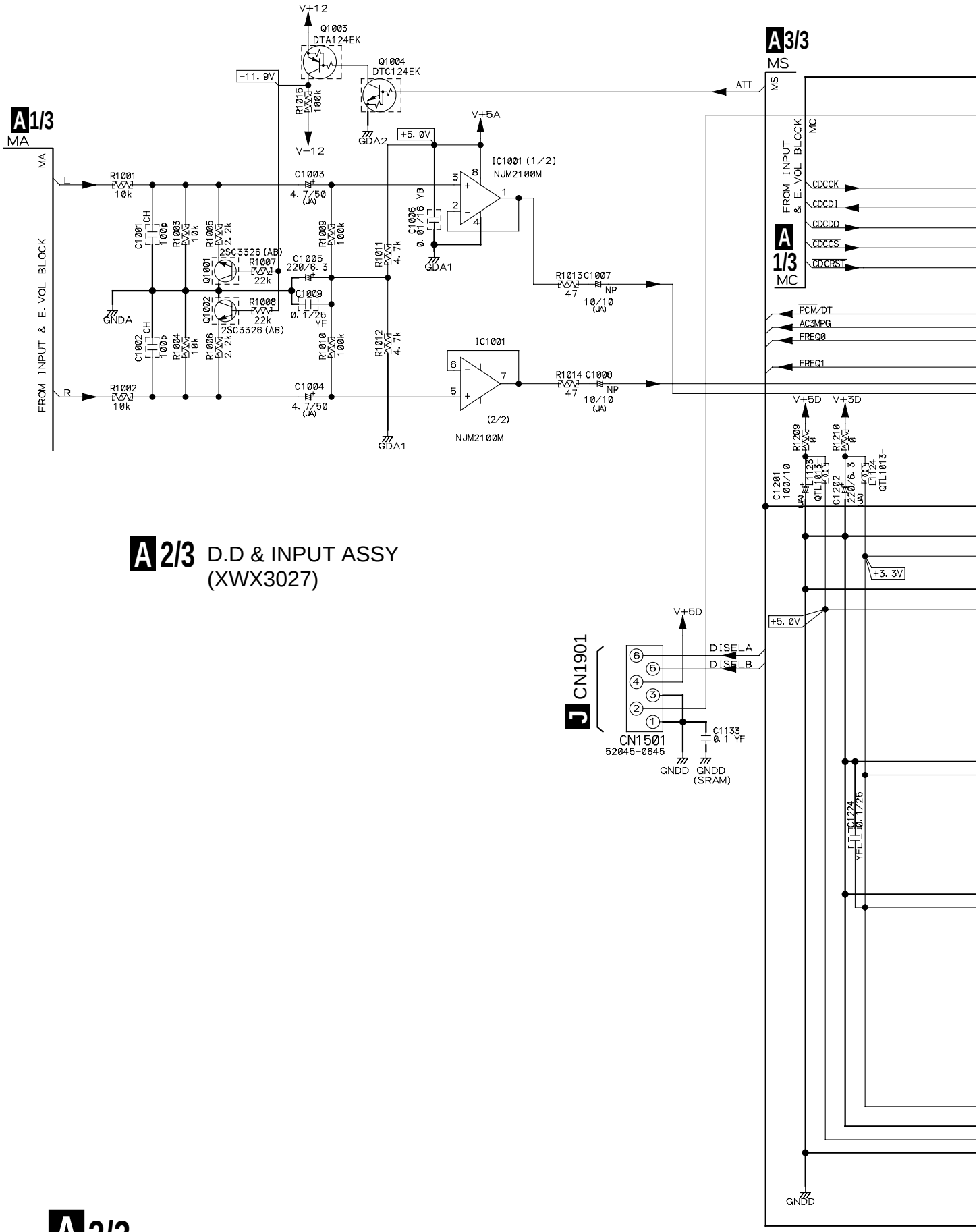
3.4 D.D & INPUT ASSY (2/3)



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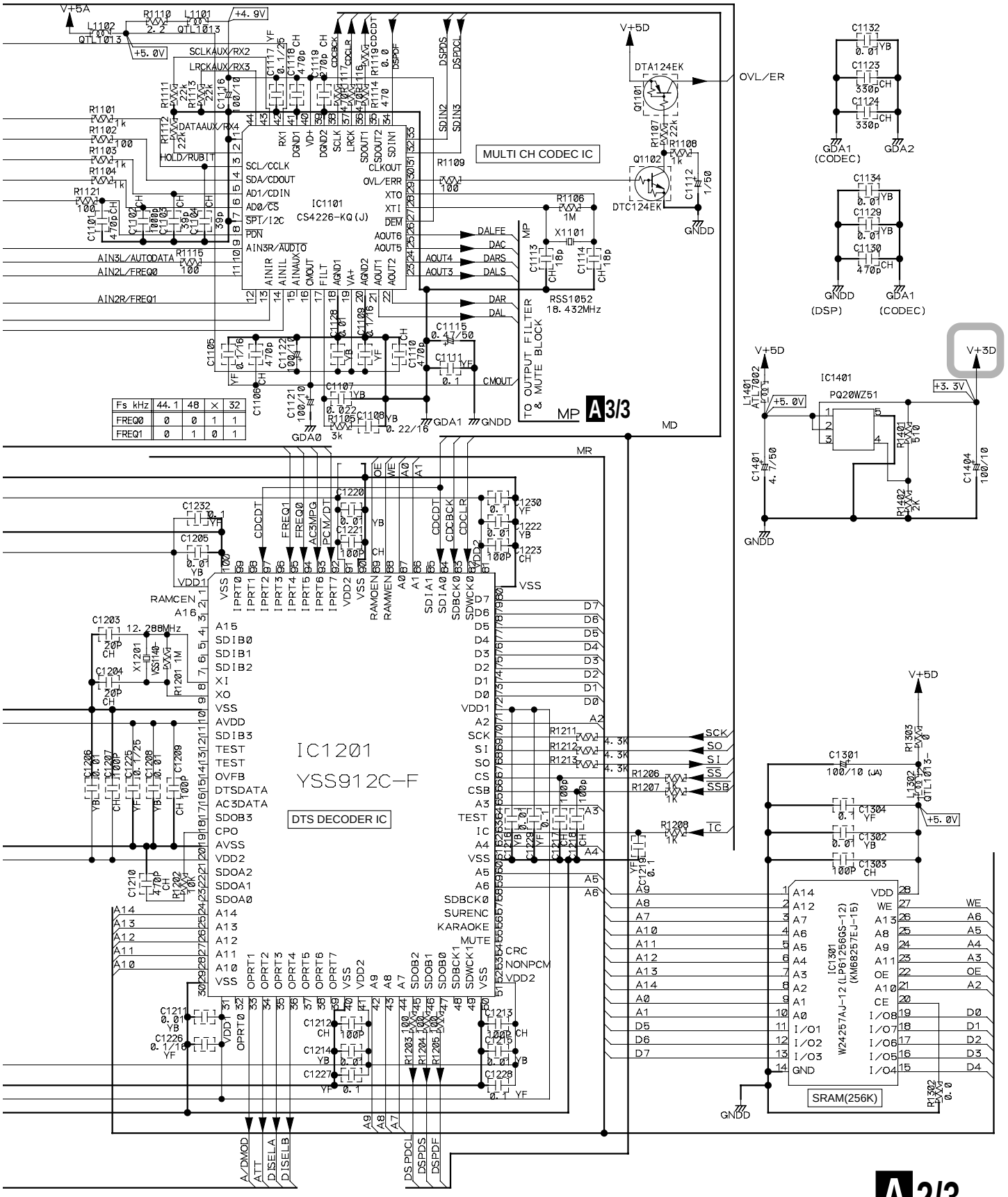
: The power supply is shown with the marked box.



Fs kHz	44.1	48	X	32
FREQ0	0	0	1	1
FREQ1	0	1	0	1

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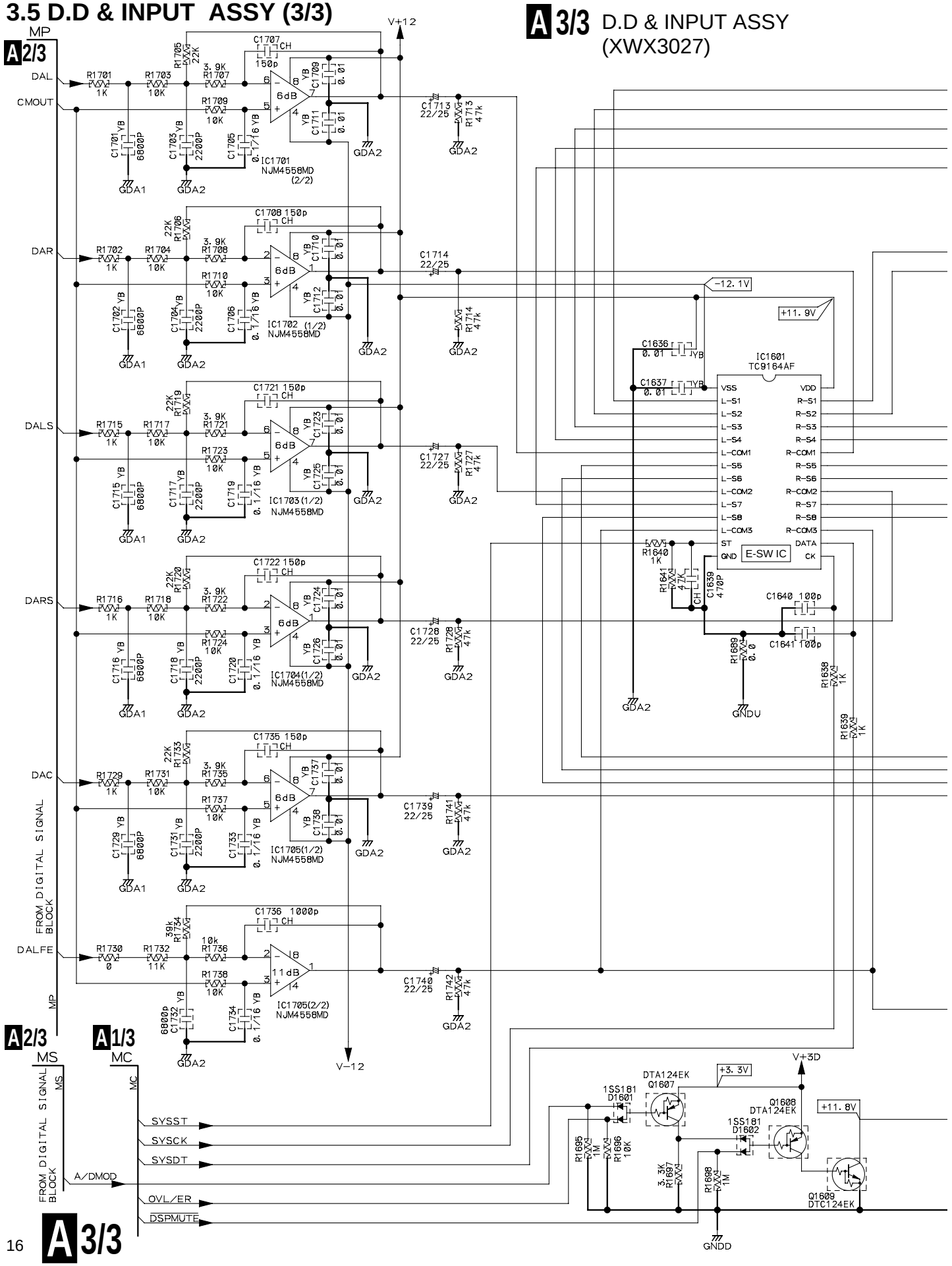
3.5 D.D & INPUT ASSY (3/3)



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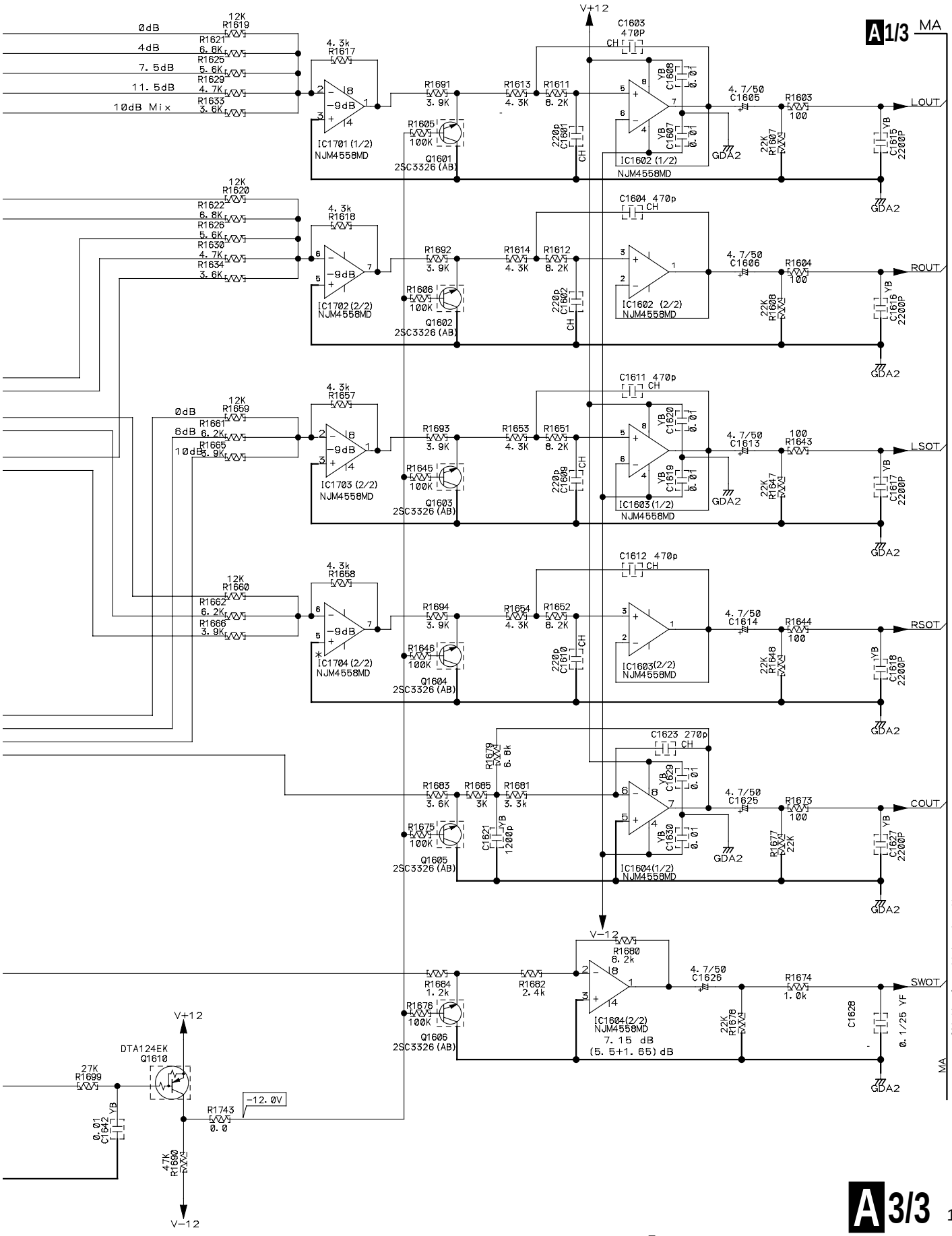

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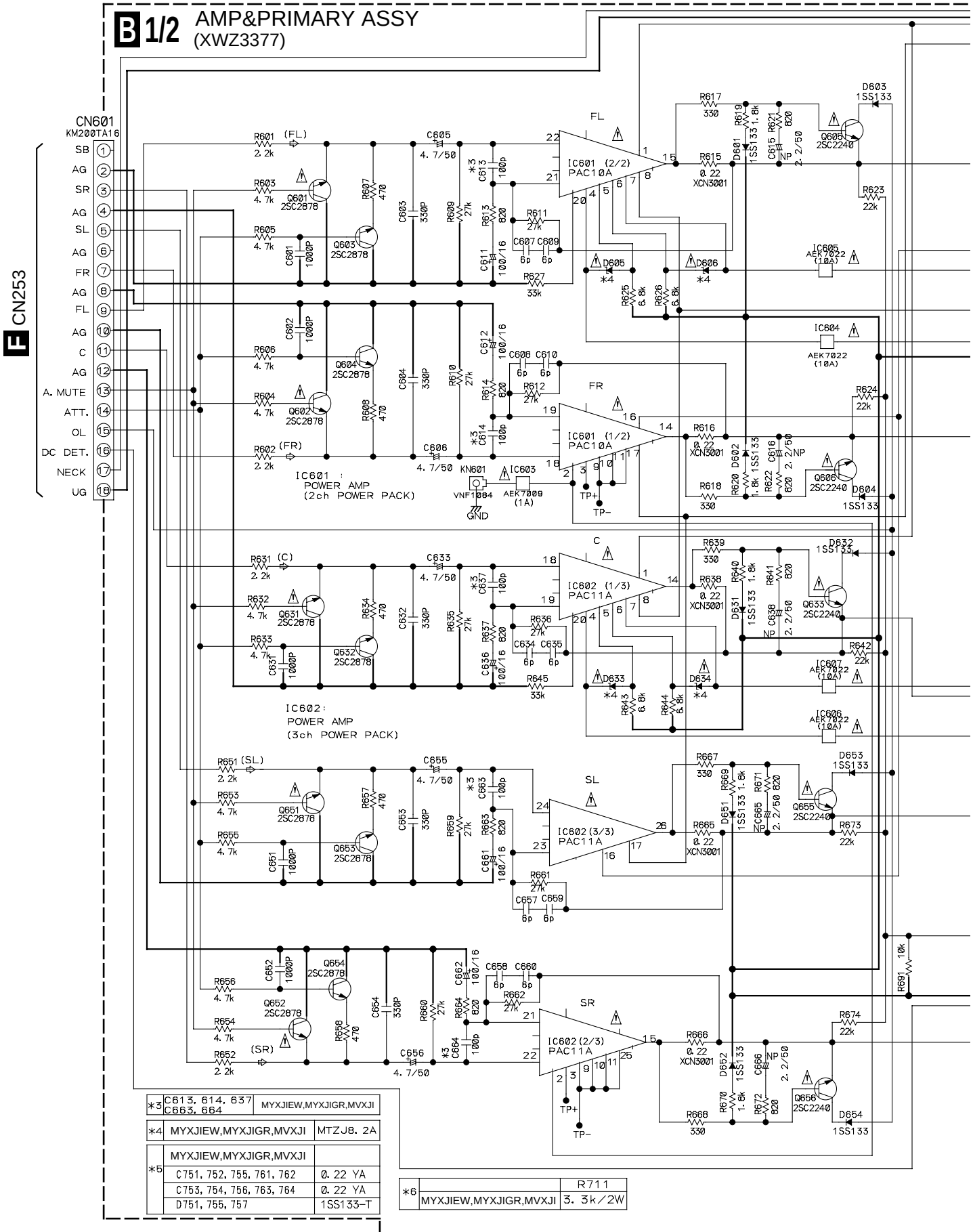
3.6 AMP&PRIMARY (1/2), TRANS2 and TRANS3 ASSYS



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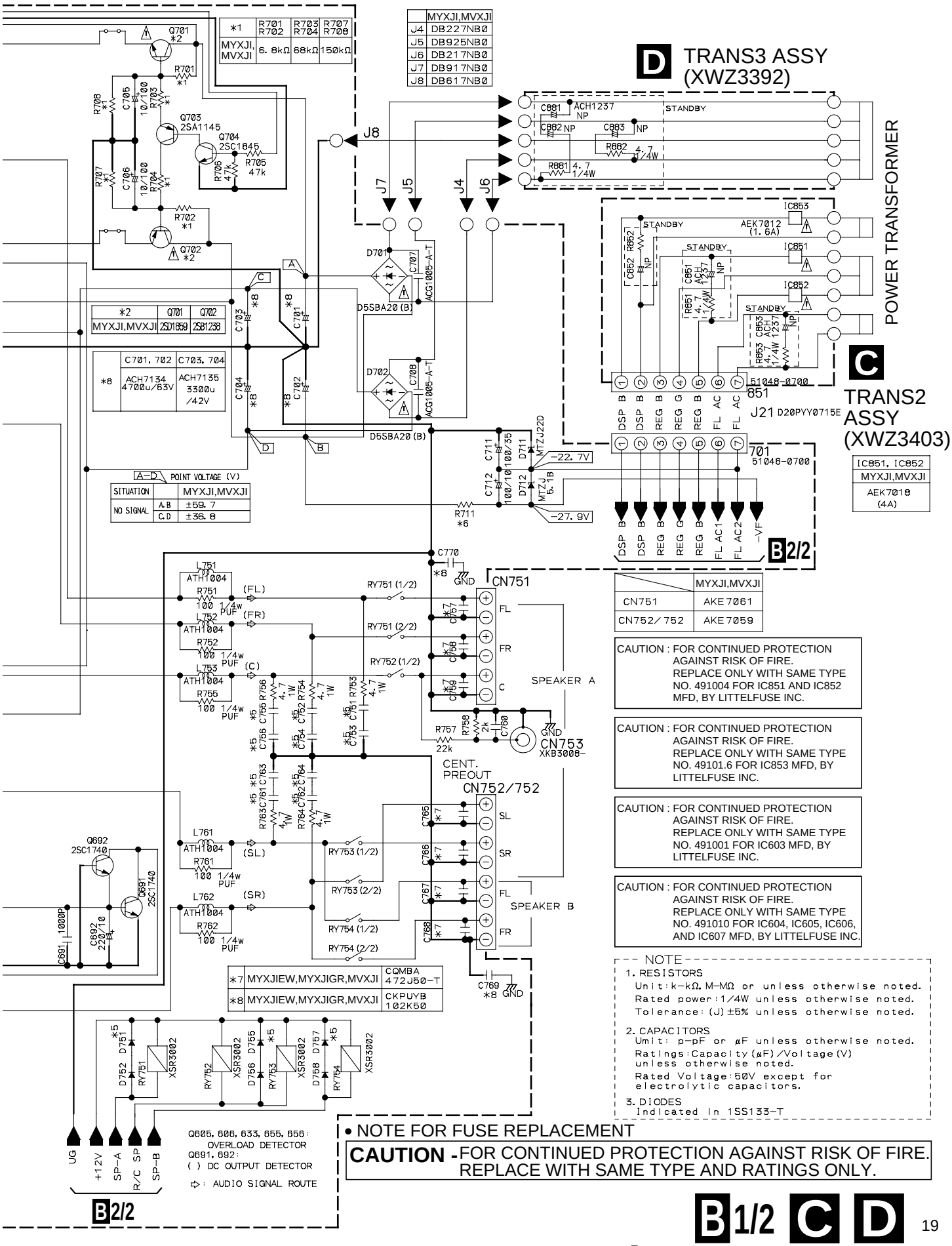

	MYXJI,MVXJI
J4	DB227NB0
J5	DB925NB0
J6	DB217NB0
J7	DB917NB0
J8	DB617NB0

*1	R701 R702	R703 R704	R707 R708
MYXJI, MVXJI	6.8kΩ	68kΩ	150kΩ

*2	Q701	Q702
MYXJI,MVXJI	2SD1858	2SB1238

	C701, 702	C703, 704
*8	ACH7134 4700u/63V	ACH7135 3300u /42V

A–D POINT VOLTAGE (V)

SITUATION		MYXJI,MVXJI
NO SIGNAL	A-B	±59.7
	C-D	±36.8

	MYXJI,MVXJI
CN751	AKE7061
CN752/752	AKE7059

IC851, IC852
MYXJI,MVXJI
AEK7018 (4A)

*7	MYXJIEW,MYXJIGR,MVXJI	CQMBA 472J50-T
*8	MYXJIEW,MYXJIGR,MVXJI	CKPUYB 102K50

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491004 FOR IC851 AND IC852 MFD, BY LITTELFUSE INC.

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 49101.6 FOR IC853 MFD, BY LITTELFUSE INC.

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491001 FOR IC603 MFD, BY LITTELFUSE INC.

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491010 FOR IC604, IC605, IC606, AND IC607 MFD, BY LITTELFUSE INC.

NOTE

1. RESISTORS
   Unit: k-kΩ, M-MΩ or unless otherwise noted.
   Rated power: 1/4W unless otherwise noted.
   Tolerance: (J) ±5% unless otherwise noted.
2. CAPACITORS
   Unit: p-pF or μF unless otherwise noted.
   Ratings: Capacity (μF)/Voltage (V) unless otherwise noted.
   Rated Voltage: 50V except for electrolytic capacitors.
3. DIODES
   Indicated in 1SS133-T

• NOTE FOR FUSE REPLACEMENT

CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE WITH SAME TYPE AND RATINGS ONLY.

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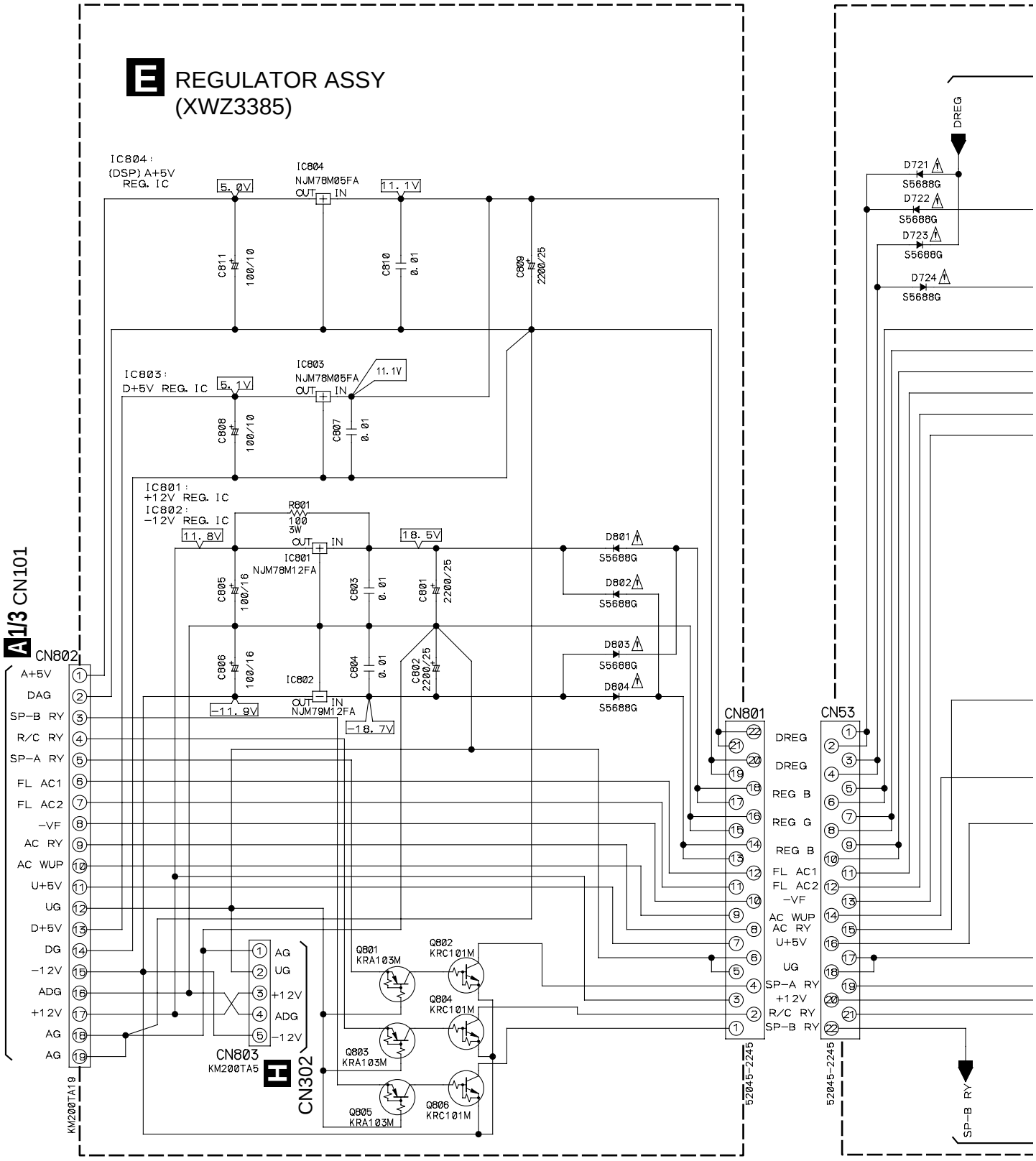
3.7 AMP&PRIMARY (2/2), REGULATOR, AMP INPUT, TRANS1, MECHA SW and TRANS4 ASSYS



20 B 2/2 E

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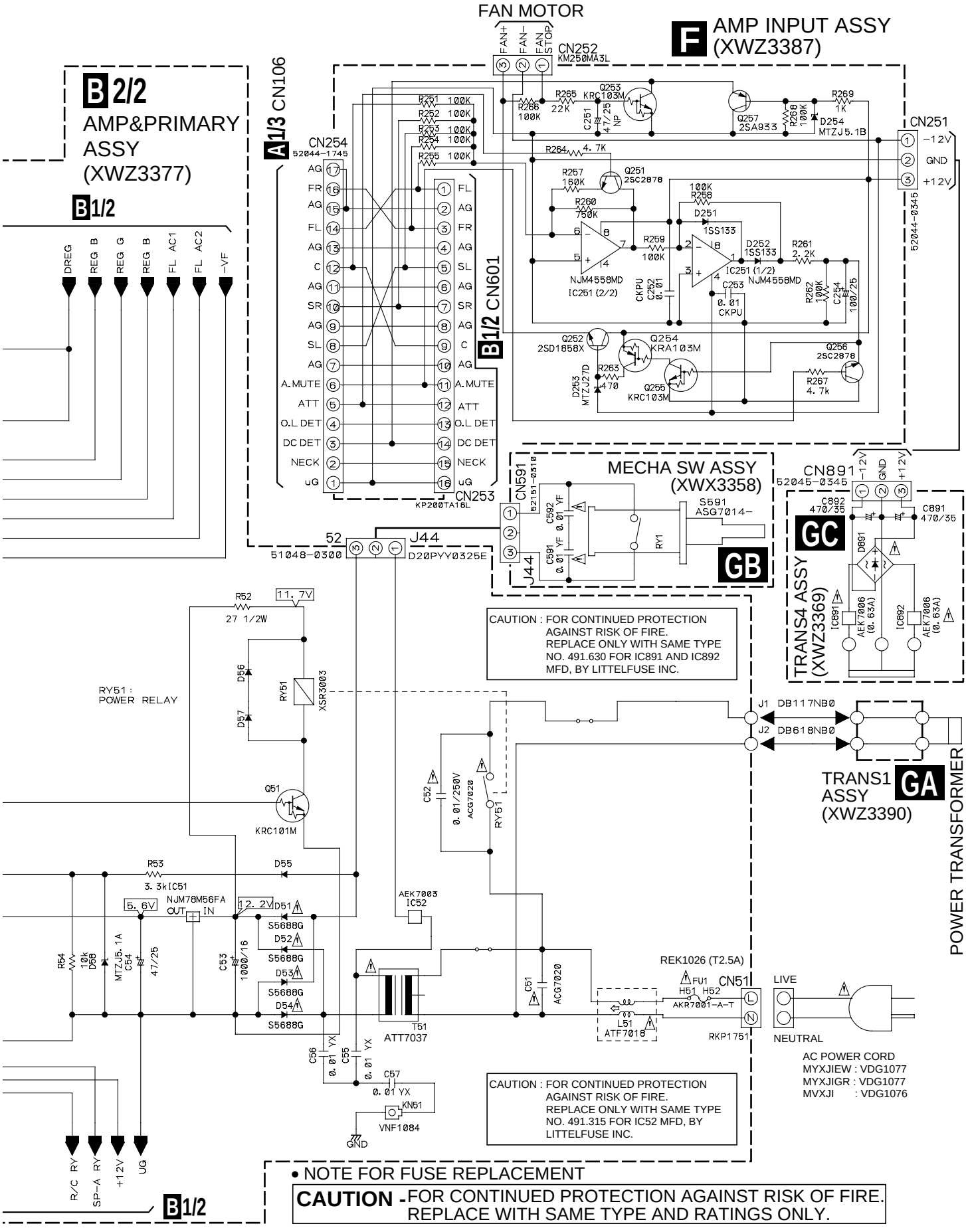

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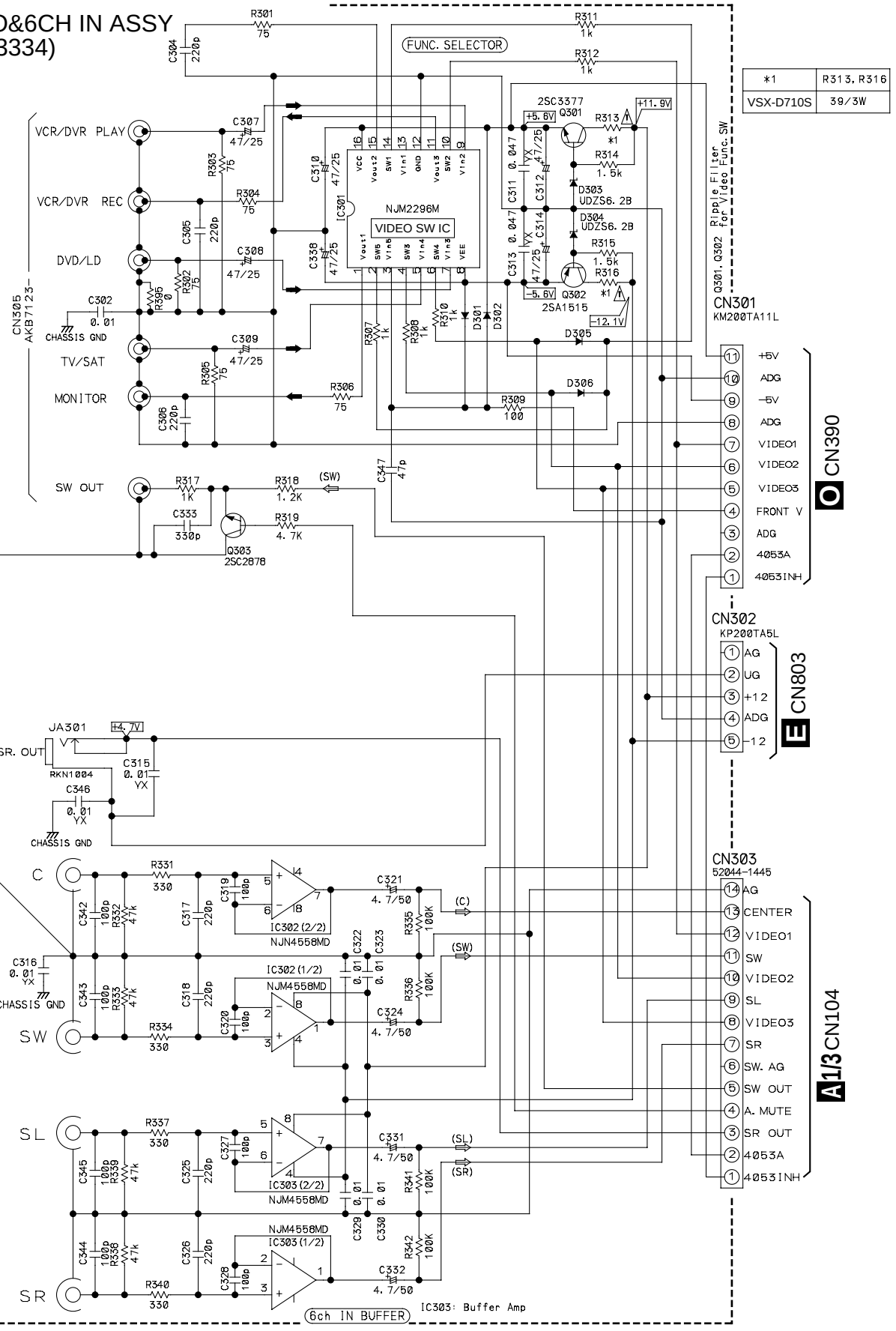
3.8 VIDEO&6CH IN, H. P. and DIGITAL IN ASSYS

H VIDEO&6CH IN ASSY (XWZ3334)



*1	R313, R316
VSX-D710S	39/3W

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NJM2296D control port status

SW1	SW2	SW3	SW4	SW5	Vout1	Vout2	Vout3
1	0	(1)	0	1	Vin2	Vin2	mute
1	1	(1)	0	1	Vin3	Vin3	Vin3
1	1	0	1	1	Vin4	Vin4	Vin4
1	1	1	1	1	Vin5	Vin5	Vin5
0	0	(0)	(0)	0	mute	mute	mute

VIN 2. VCR/DVR
VIN 3. DVD/LD
VIN 4. TV/SAT
VIN 5. FRONT VIDEO

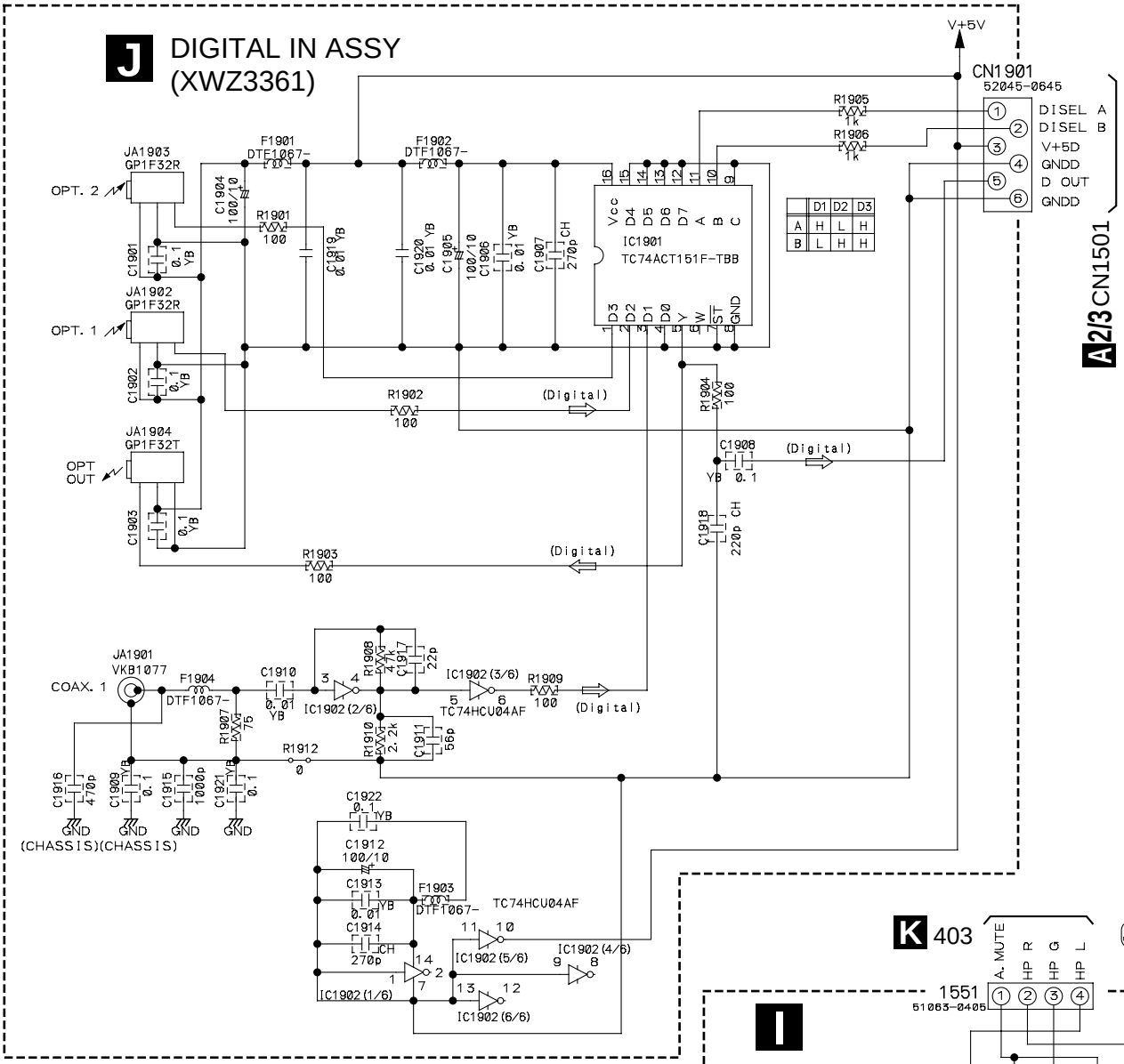
Vout1. MONITOR out
Vout2. MR out
Vout3. VCR/DVR out

-NOTE-

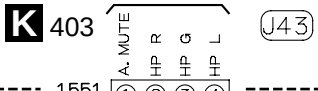
1. RESISTORS
   Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
   Rated power: 1/10W unless otherwise noted.
   Tolerance: (J)±5% unless otherwise noted.
2. CAPACITORS
   Unit: p-pF or μF unless otherwise noted.
   Ratings: Capacity(μF)/Voltage(V) unless otherwise noted.
   Rated Voltage: 50V expect for electrolytic capacitors.
3. DIODES
   Indicated in 1SS355-TRB

Video Signal Flow
Audio Signal Flow

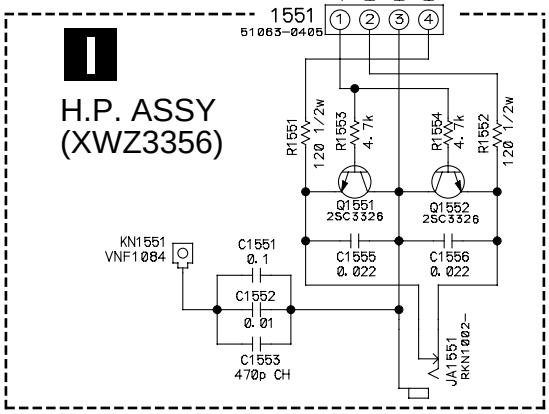
J DIGITAL IN ASSY (XWZ3361)



K 403



I H.P. ASSY (XWZ3356)



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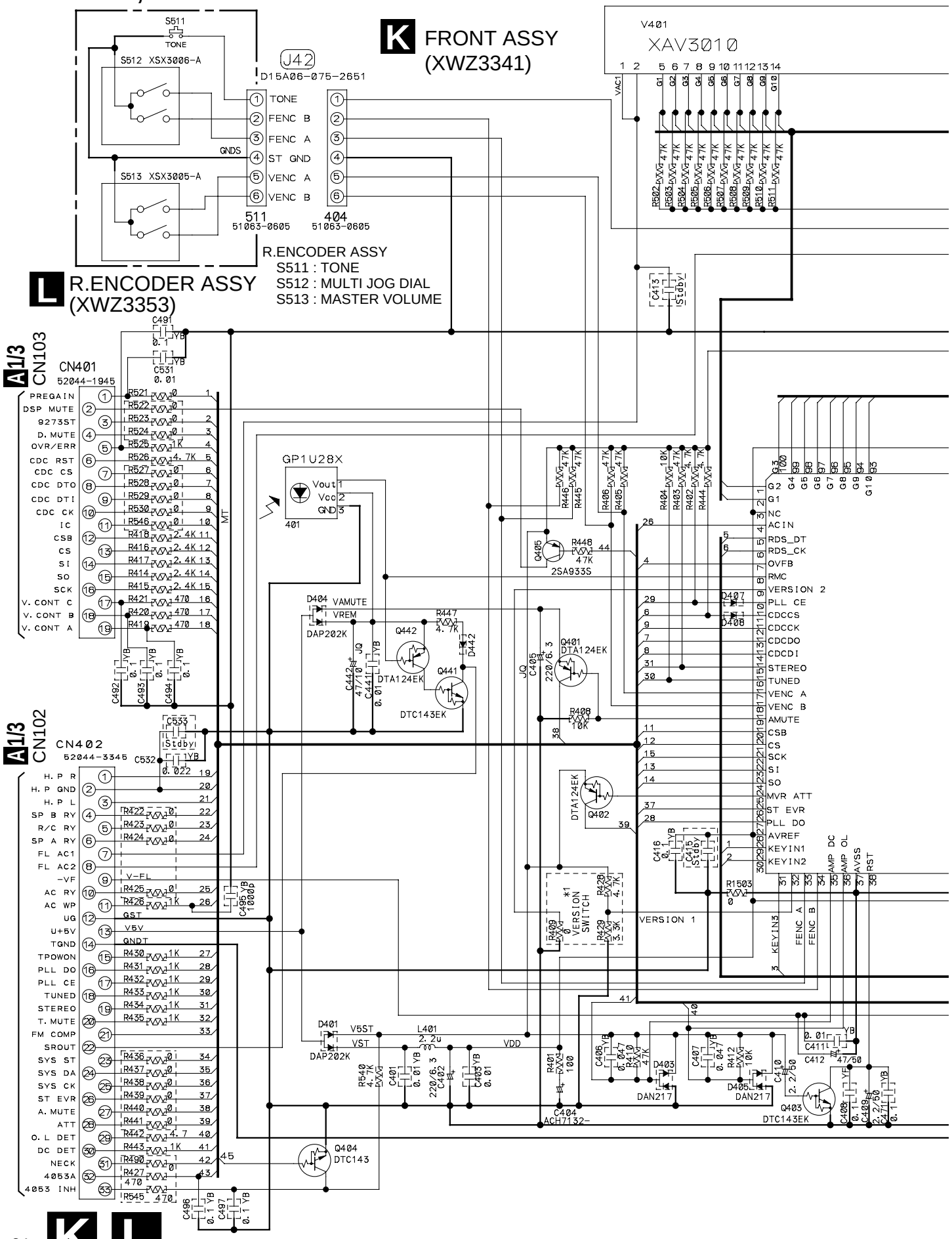
3.9 FRONT, R. ENCODER and POWER SW ASSYS



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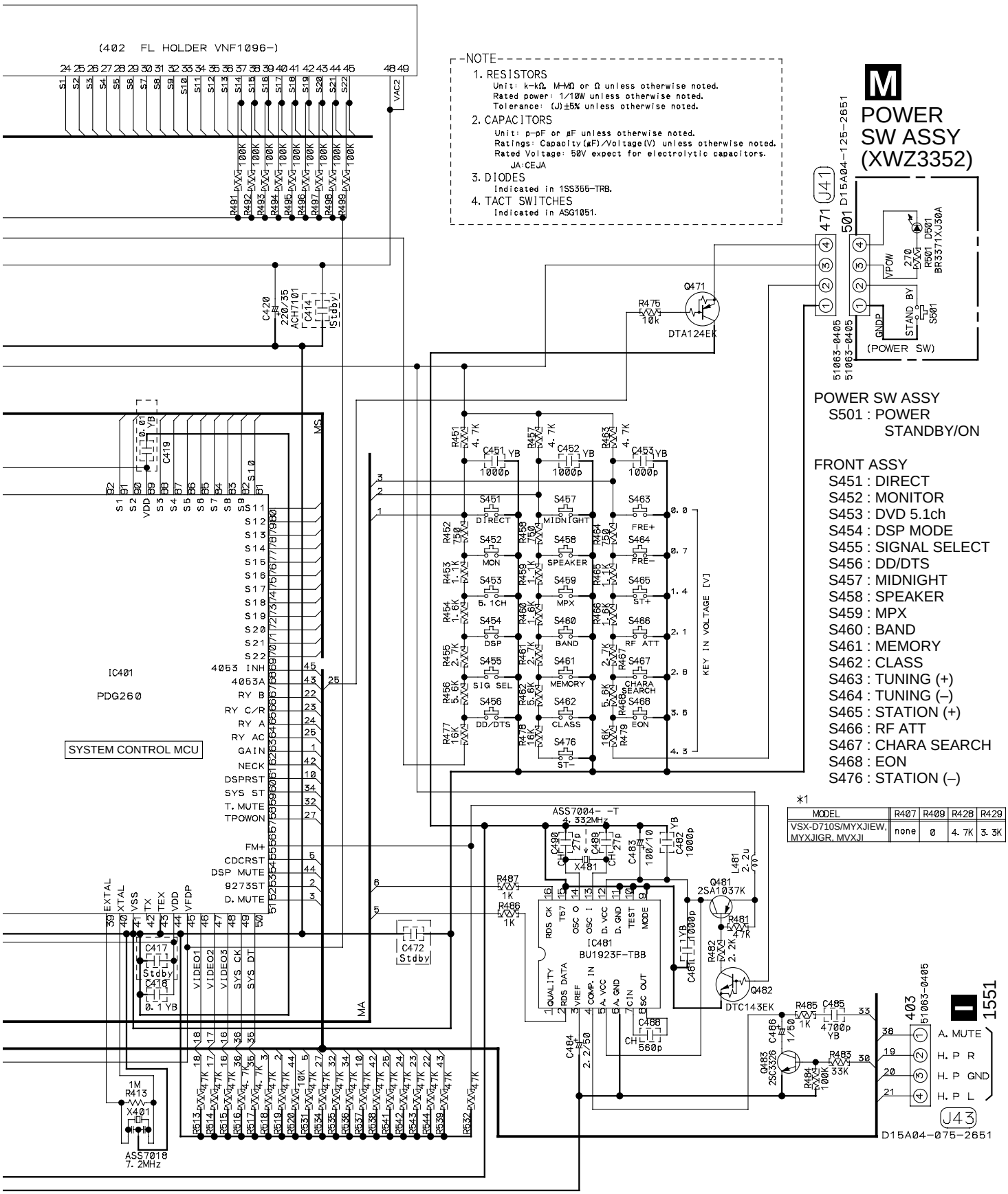

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3.10 S. VIDEO, BOARD TO BOARD, FRONT VIDEO and COMPONENT ASSYS

NJM2296D control port status

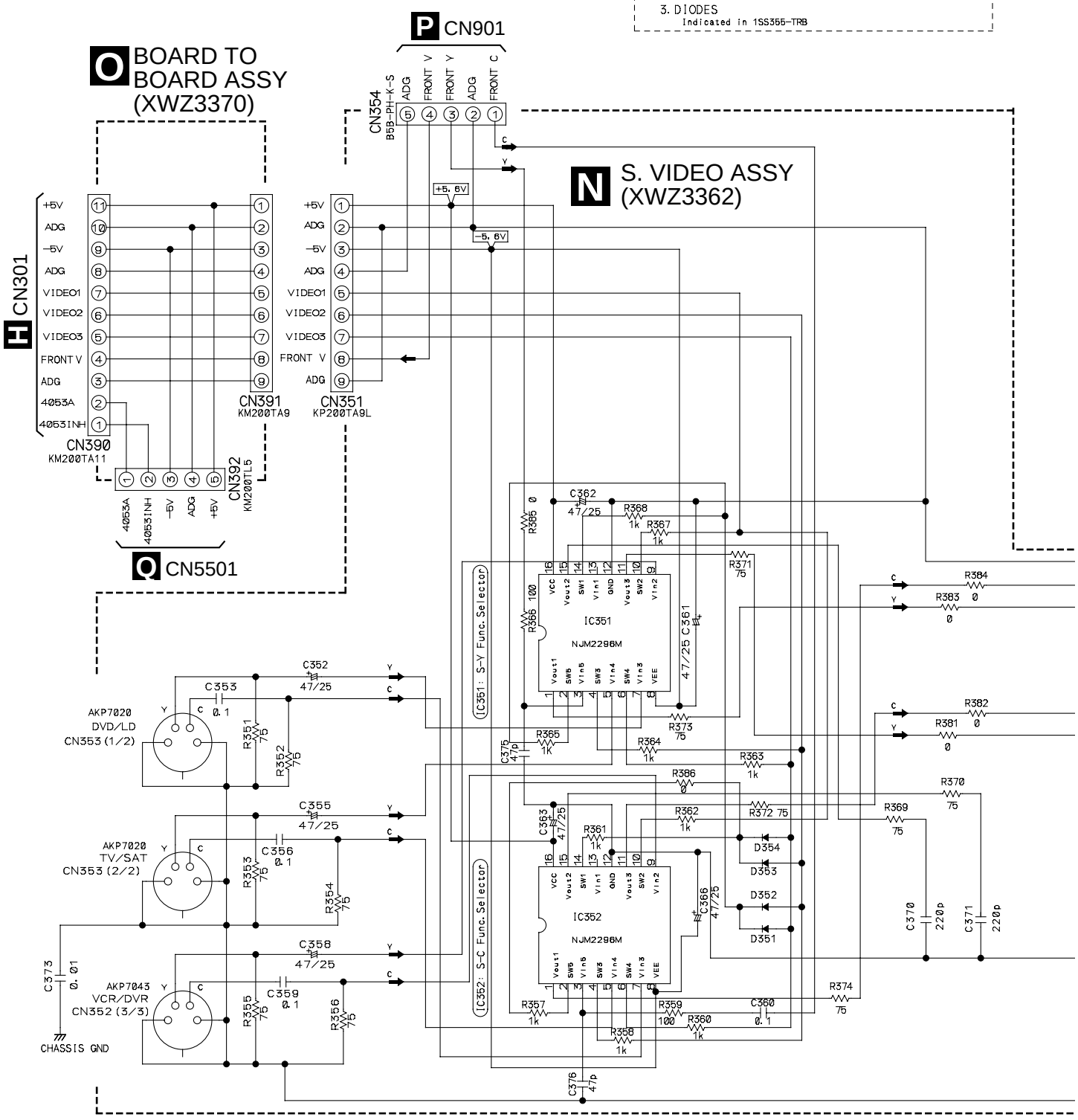
SW1	SW2	SW3	SW4	SW5	Vout1	Vout2	Vout3
1	0	(1)	0	1	Vin2	Vin2	mute
1	1	(1)	0	1	Vin3	Vin3	Vin3
1	1	0	1	1	Vin4	Vin4	Vin4
1	1	1	1	1	Vin5	Vin5	Vin5
0	0	(0)	(0)	0	mute	mute	mute

VIN 2. VCR/DVR
VIN 3. DVD/LD
VIN 4. TV/SAT
VIN 5. FRONT VIDEO

Vout1. MONITOR out
Vout2. MR out
Vout3. VCR/DVR out

Video Signal Flow
Audio Signal Flow

NOTE
1. RESISTORS
Unit: k-kΩ, M-MΩ or Ω unless otherwise noted.
Rated power: 1/10W unless otherwise noted.
Tolerance: (J)±5% unless otherwise noted.
2. CAPACITORS
Unit: p-pF or μF unless otherwise noted.
Ratings: Capacity(μF)/Voltage(V) unless otherwise noted.
Rated Voltage: 50V expect for electrolytic capacitors.
3. DIODES
Indicated in 1SS355-TRB



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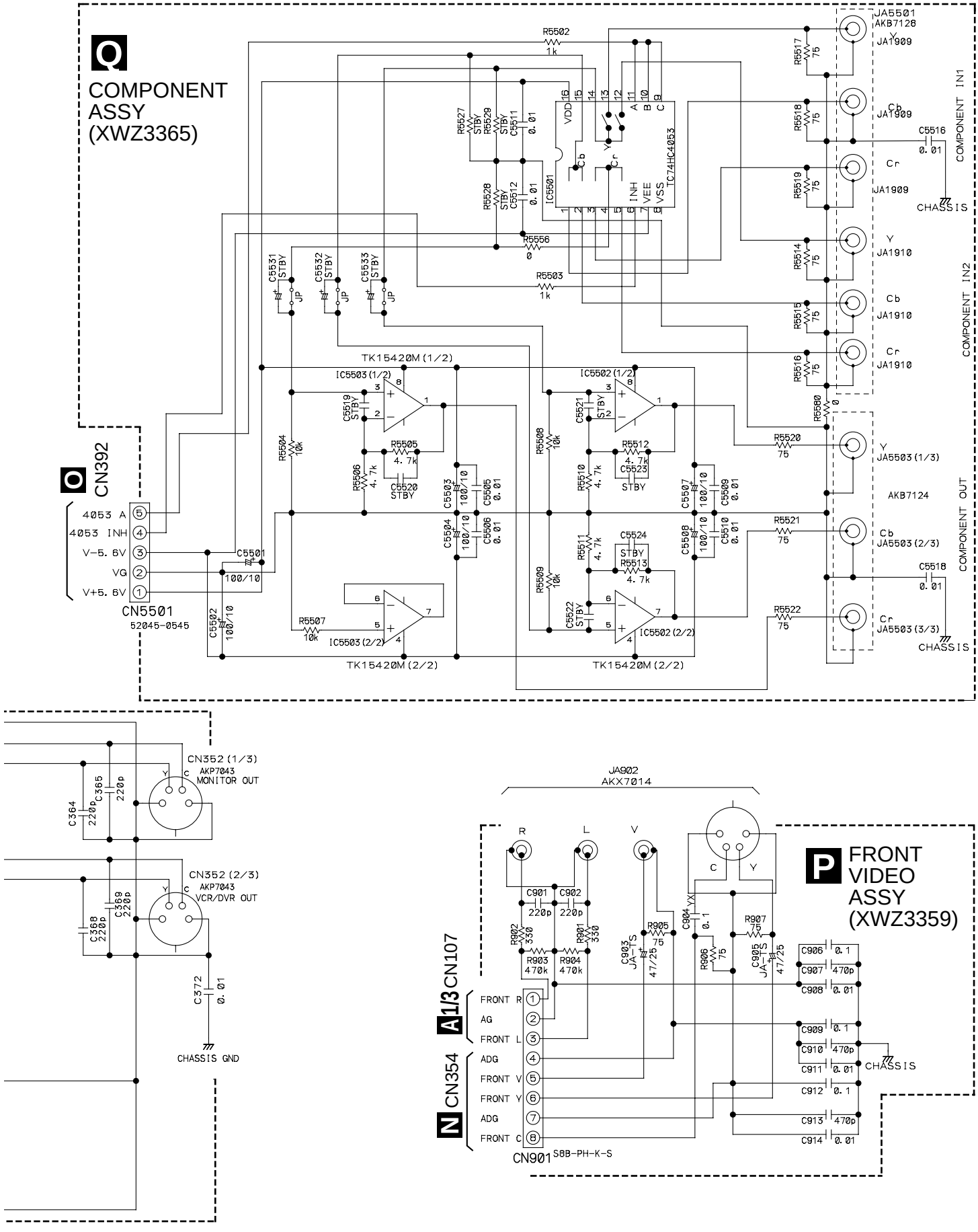

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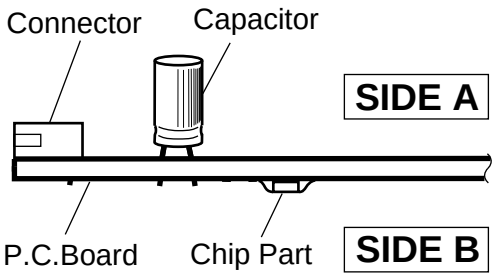
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

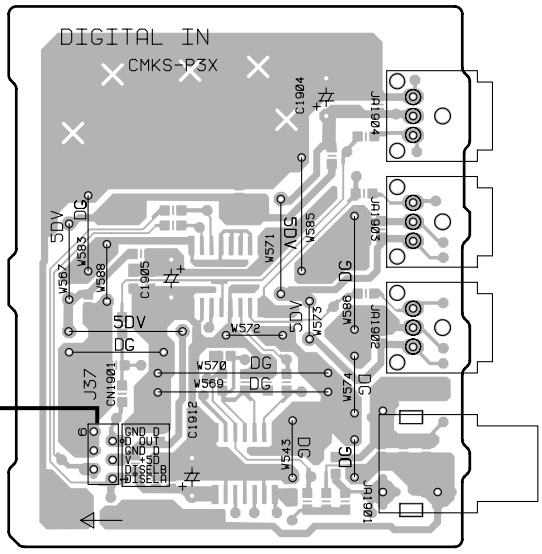
Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3-terminal regulator

3. The parts mounted on this PCB include all necessary parts for several destinations.
   For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.



4.1 DIGITAL IN ASSY

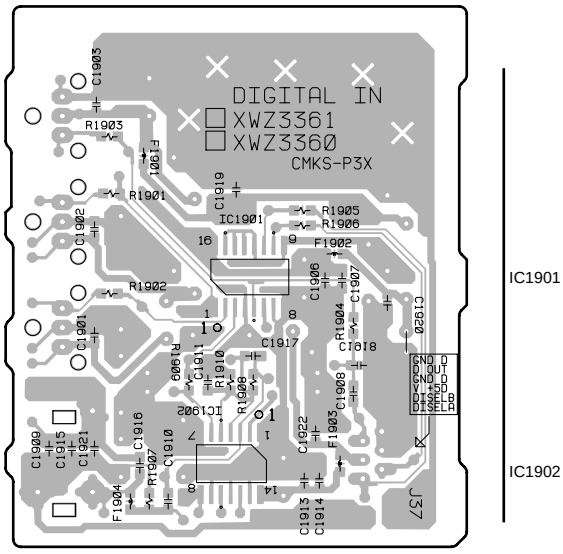
J DIGITAL IN ASSY



(XNP3035-B)

SIDE A

J DIGITAL IN ASSY



(XNP3035-B)

SIDE B

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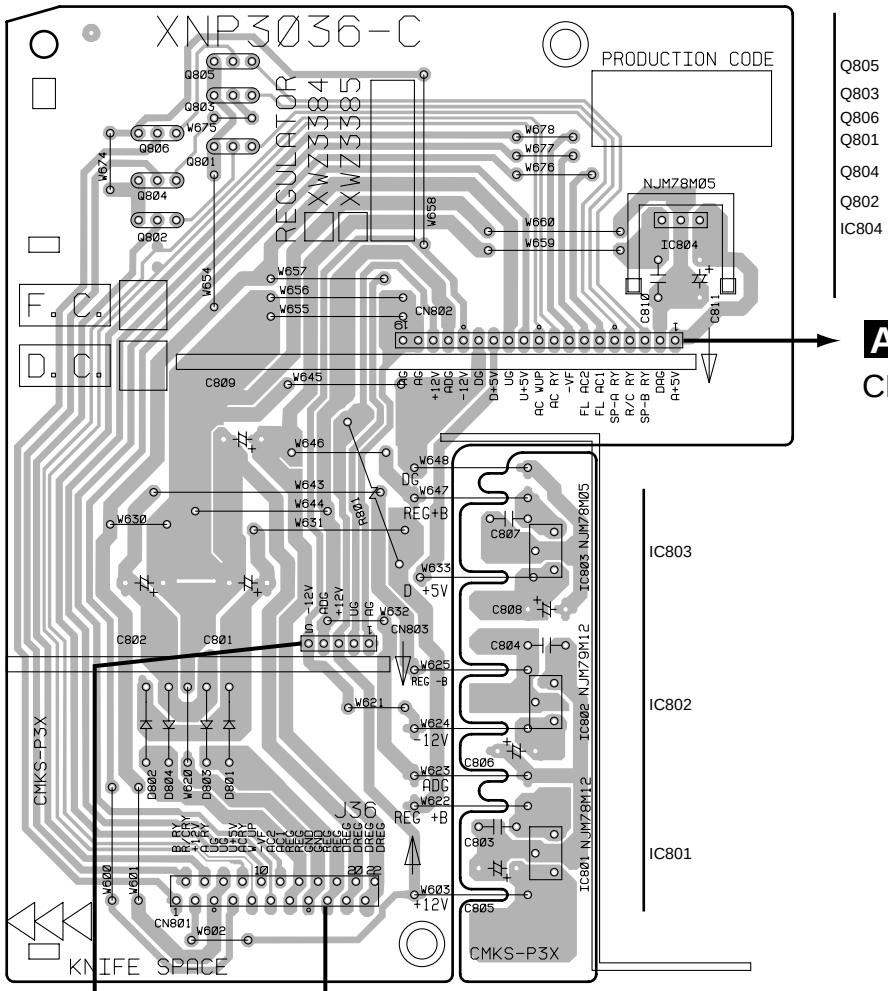
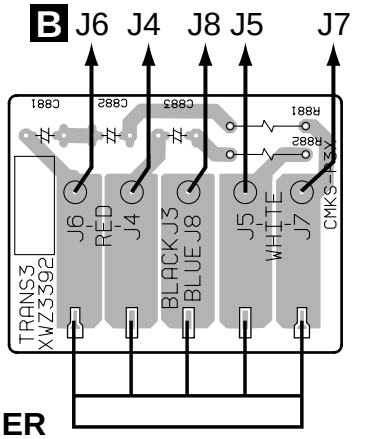
4.2 TRANS2, TRANS3, REGULATOR, TRANS1 and TRANS4 ASSYS

E REGULATOR ASSY

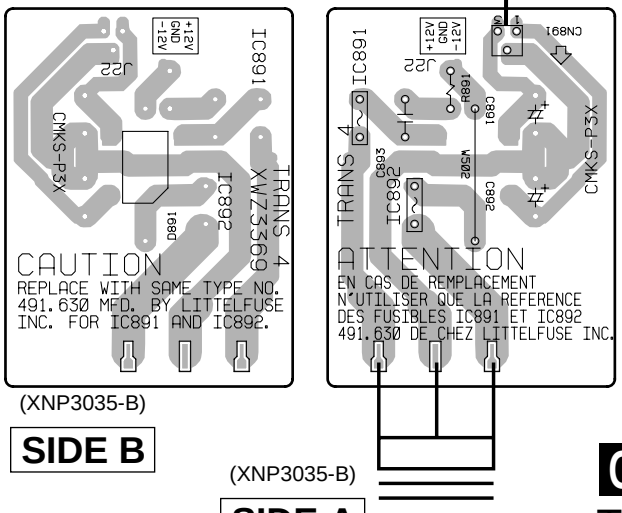


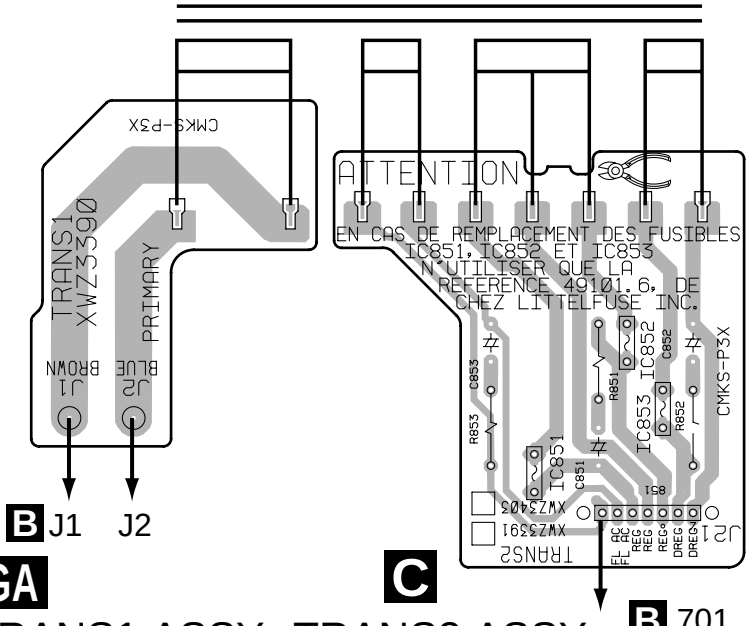
D TRANS3 ASSY



POWER TRANSFORMER

GC TRANS4 ASSY


F CN251
CAUTION
REPLACE WITH SAME TYPE NO. 491.630 MFD. BY LITTELFUSE INC. FOR IC891 AND IC892.
ATTENTION
EN CAS DE REMPLACEMENT N'UTILISER QUE LA REFERENCE DES FUSIBLES IC891 ET IC892 491.630 DE CHEZ LITTELFUSE INC.
TRANS 4 XWZ3390
CMKS-P3X
(XNP3035-B)
SIDE B
(XNP3035-B)
SIDE A



GA TRANS1 ASSY **C** TRANS2 ASSY

C D E GA GC

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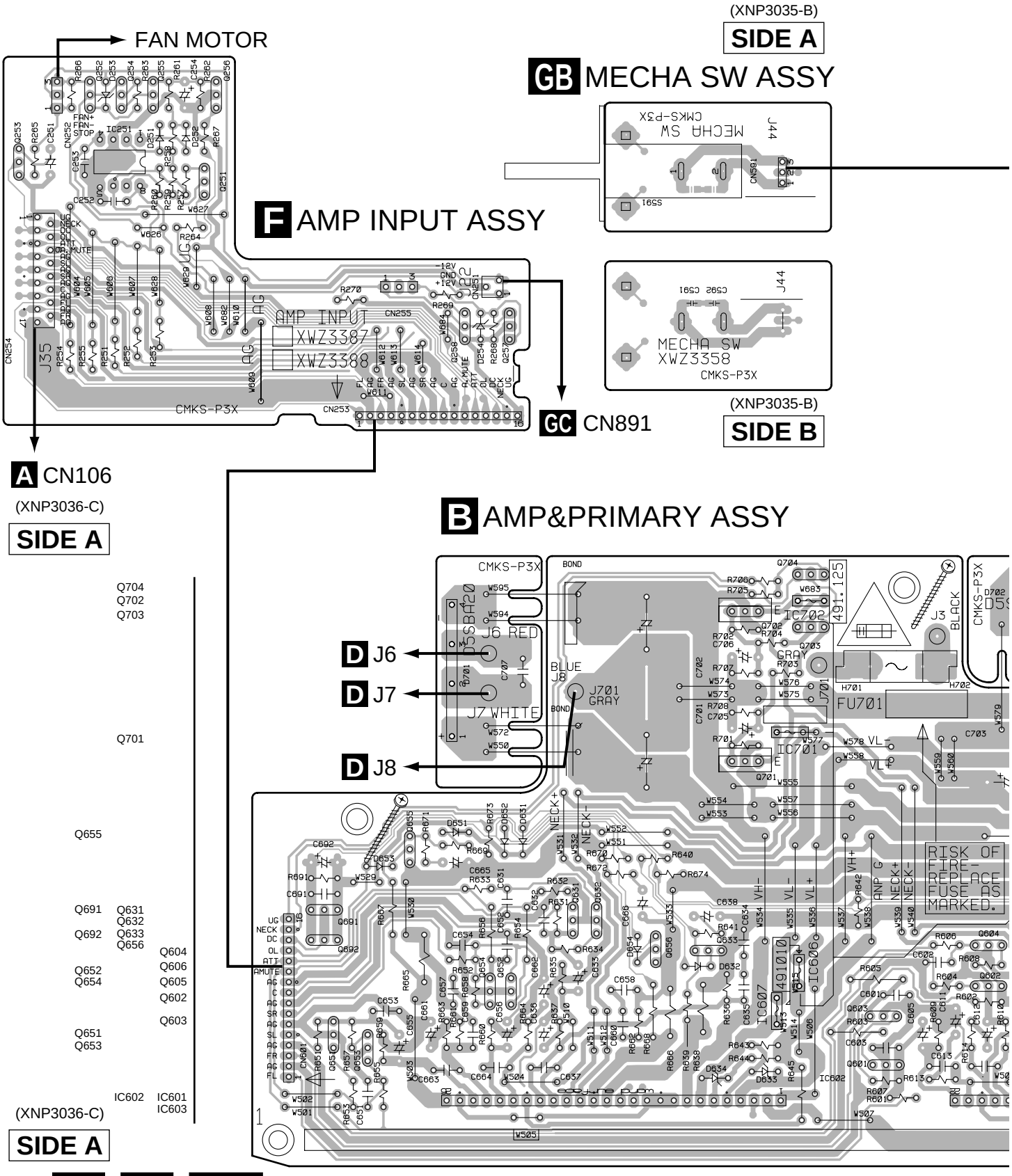
4.3 AMP INPUT, AMP&PRIMARY and MECHA SW ASSYS



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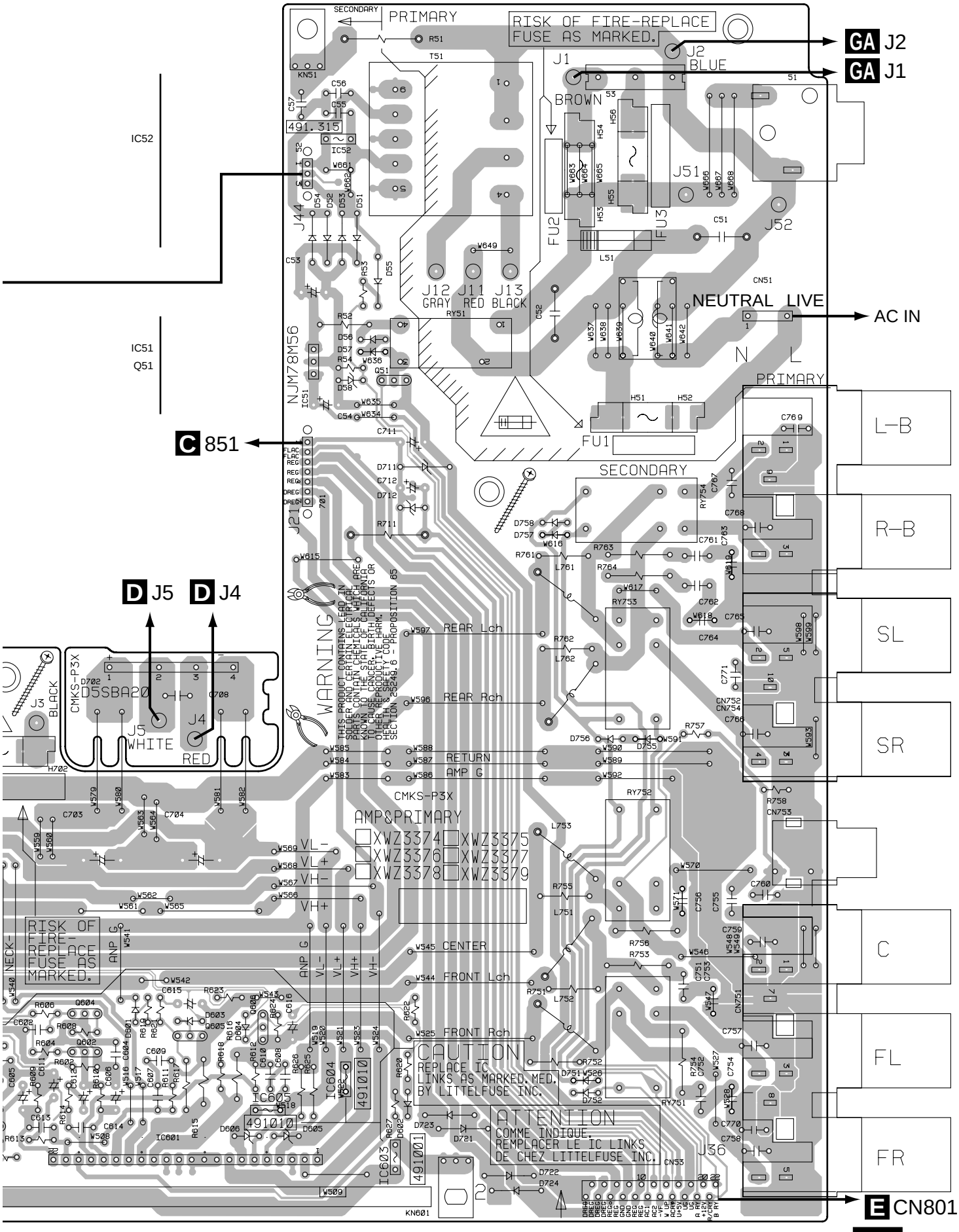

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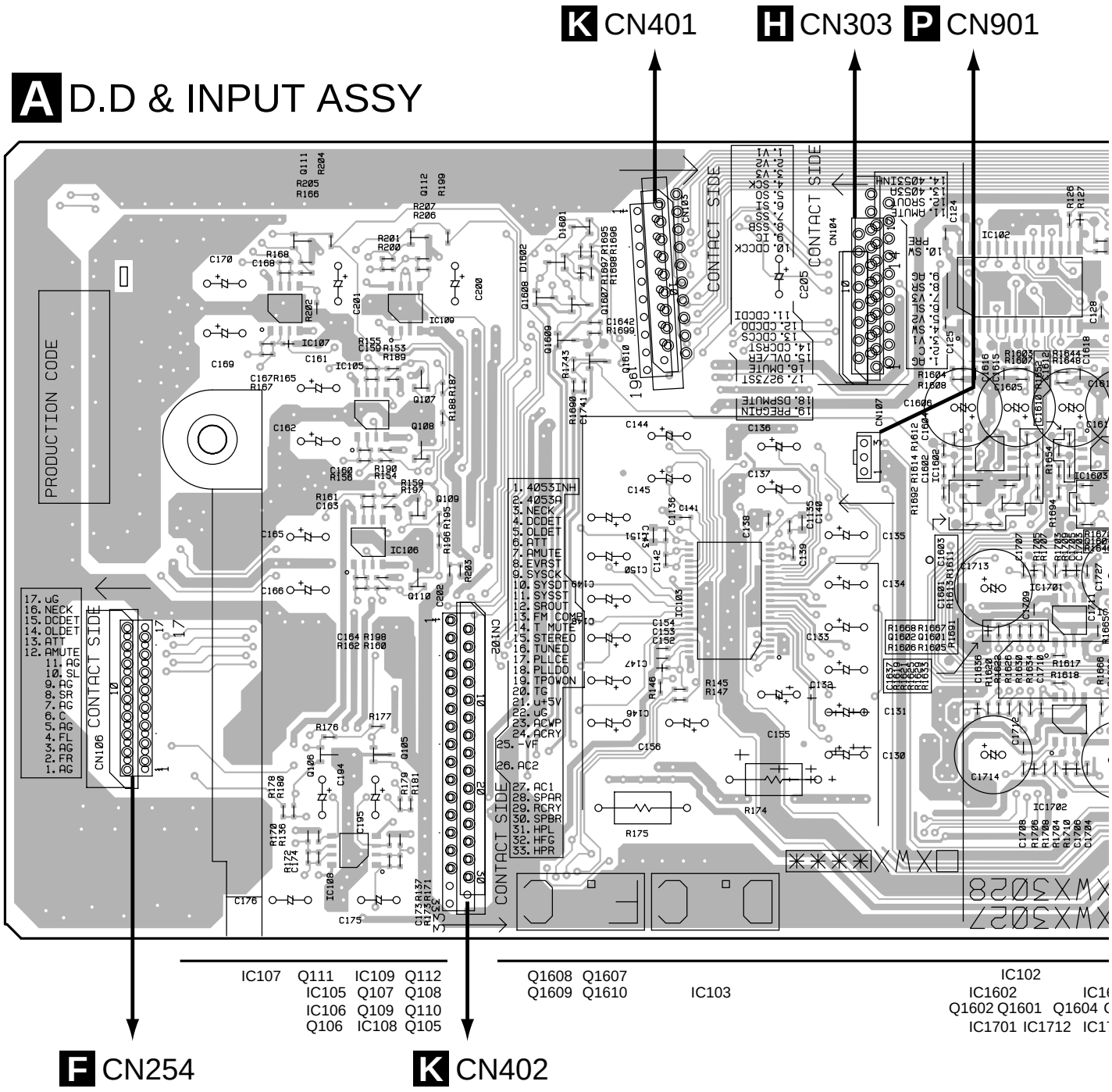
4.4 D.D & INPUT ASSY



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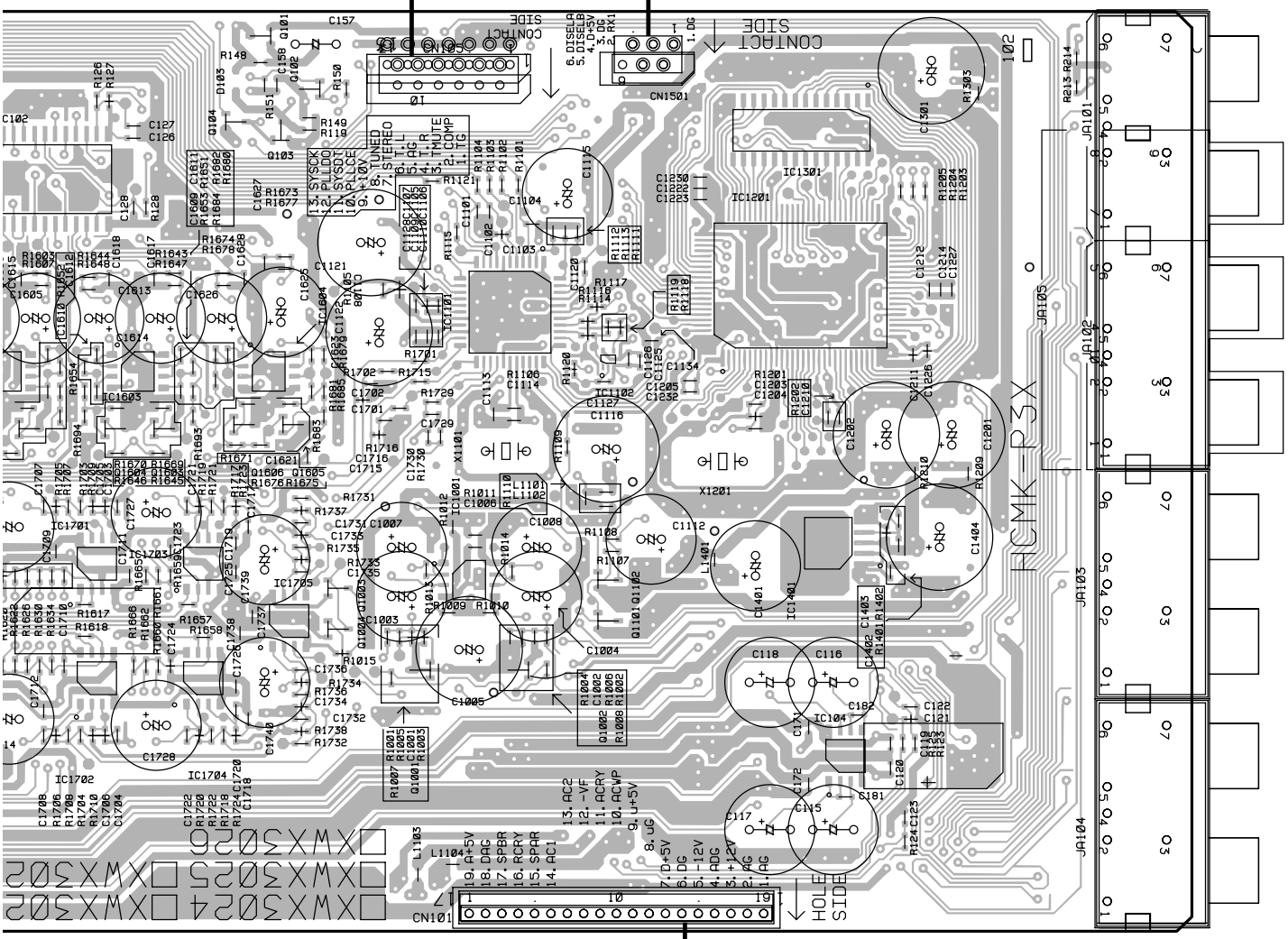
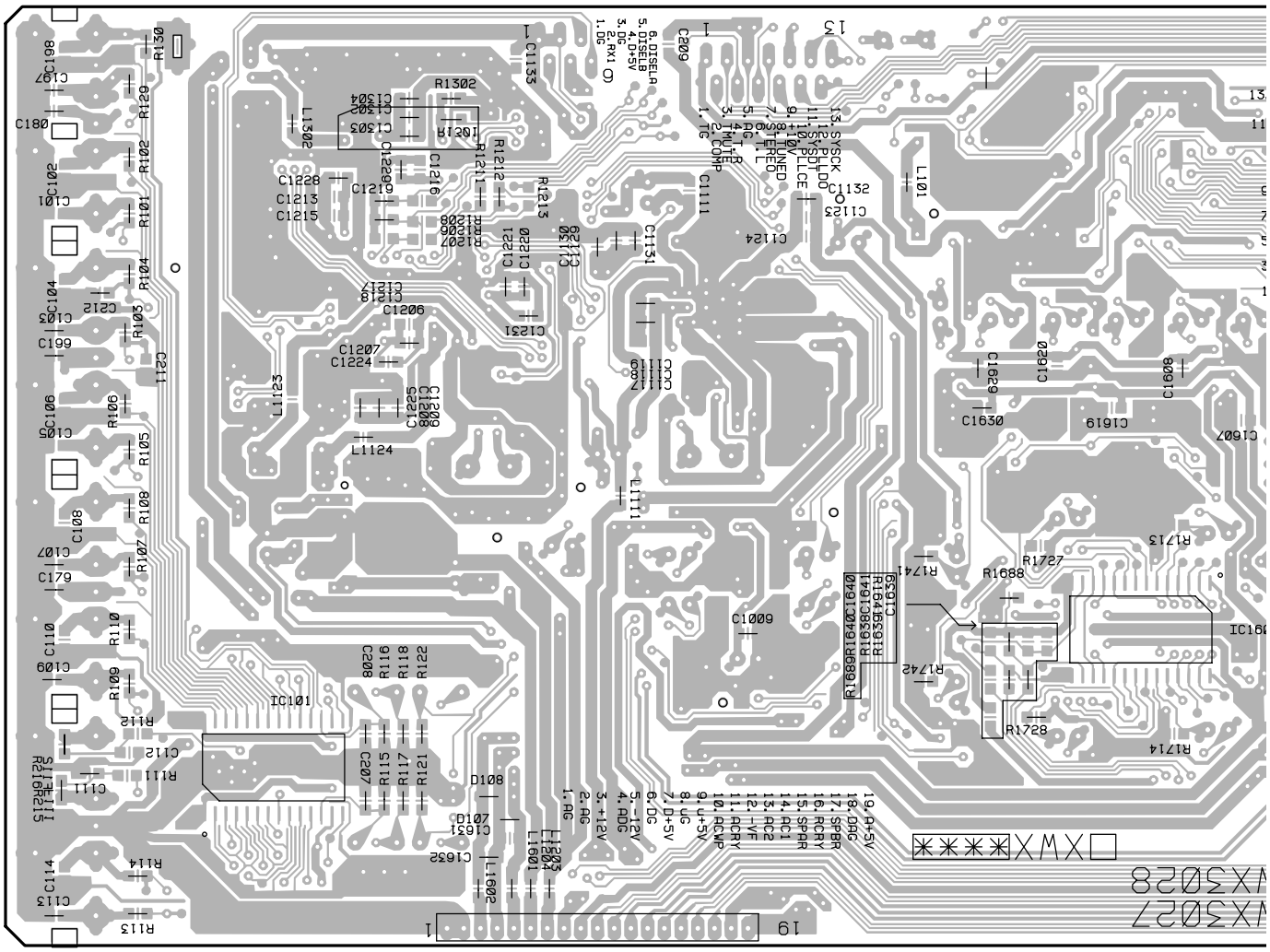
901 FM/AM TUNER UNIT J CN1901



E CN802

Downloaded from www.Manualslib.com manuals search engine

A D.D & INPUT ASSY



IC101 IC1801

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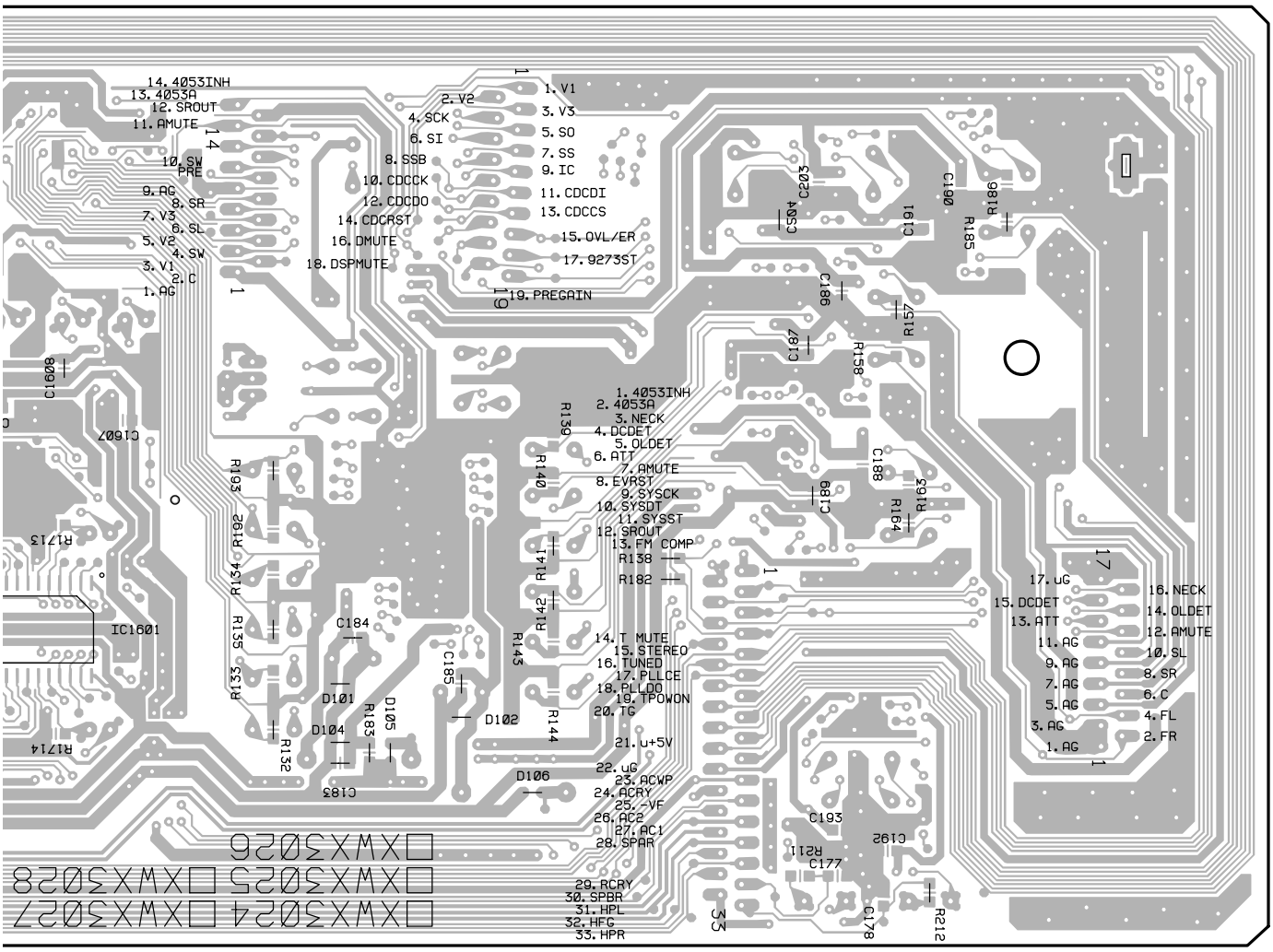

(XNP3037-A)

SIDE B

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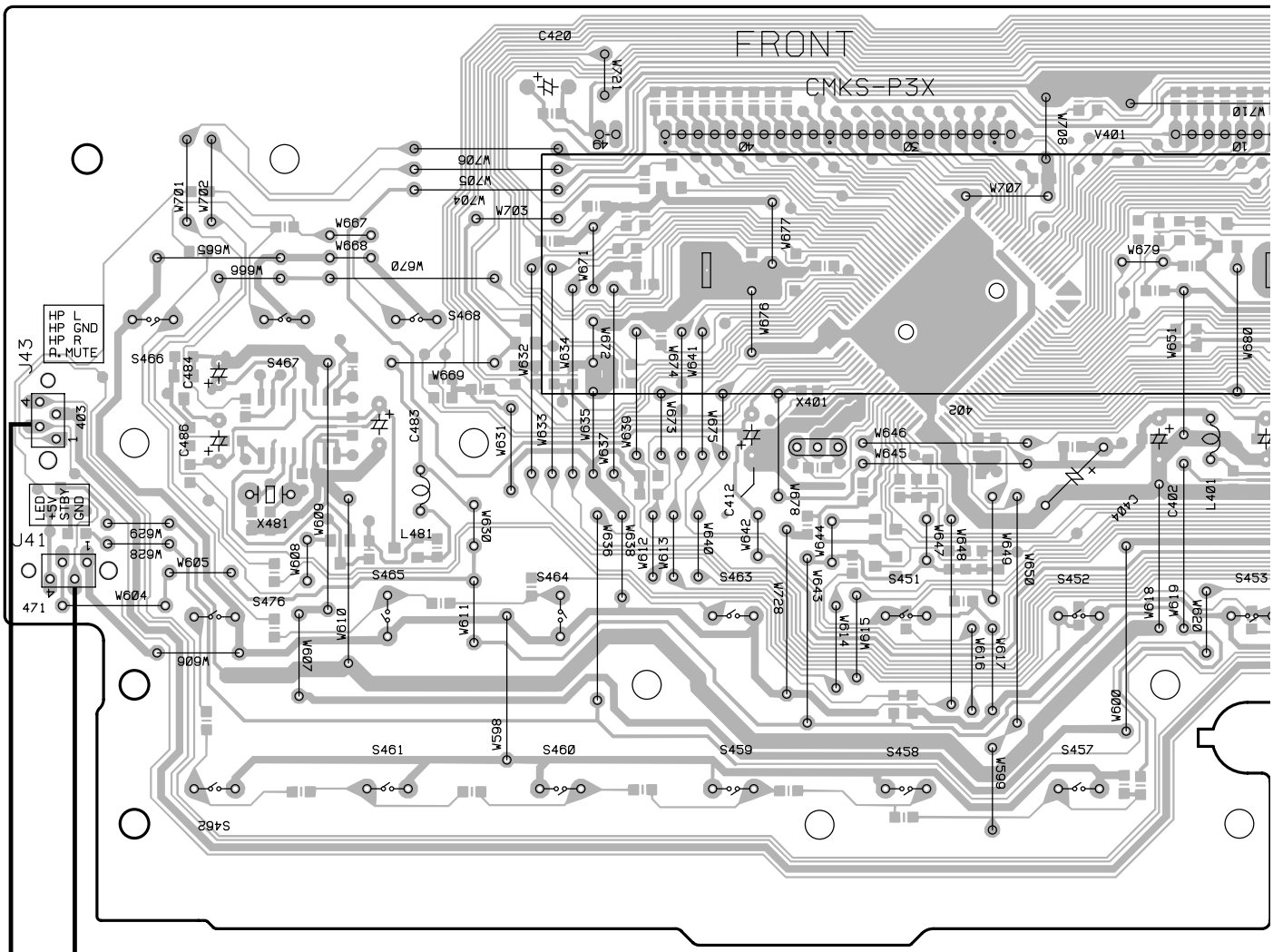
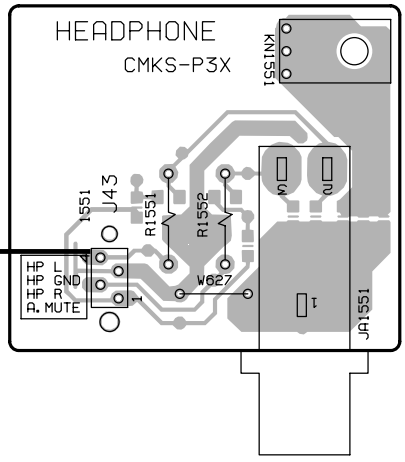
4.5 H.P., FRONT, R.ENCODER and POWER SW ASSYS

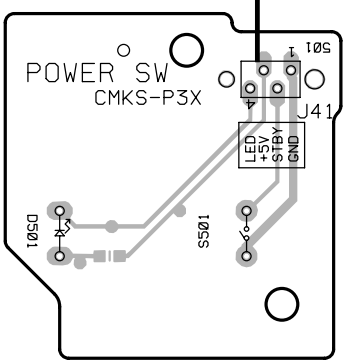
K FRONT ASSY



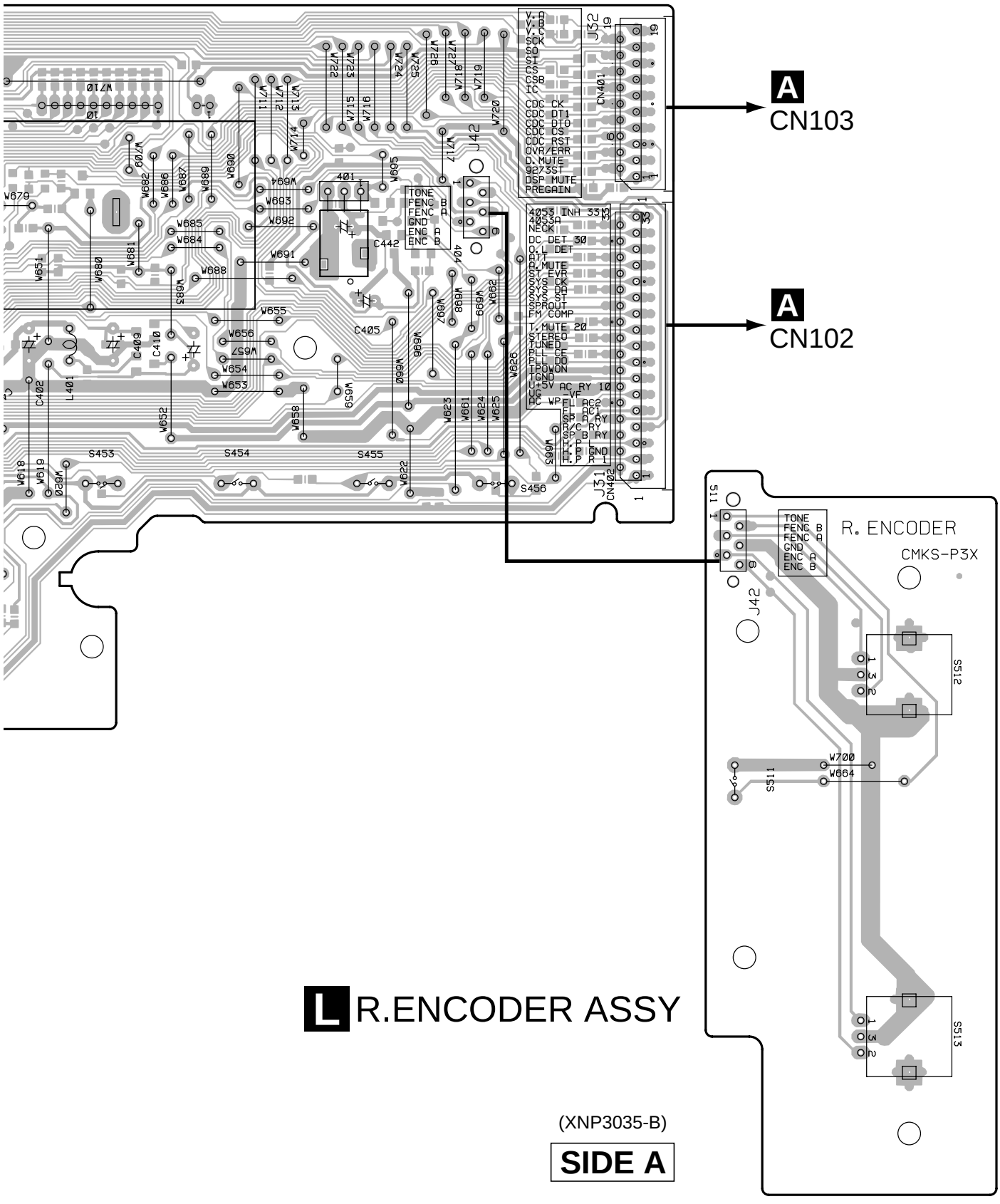
I H.P. ASSY



M POWER SW ASSY



Downloaded from www.Manualslib.com manuals search engine



L R.ENCODER ASSY

(XNP3035-B)

SIDE A

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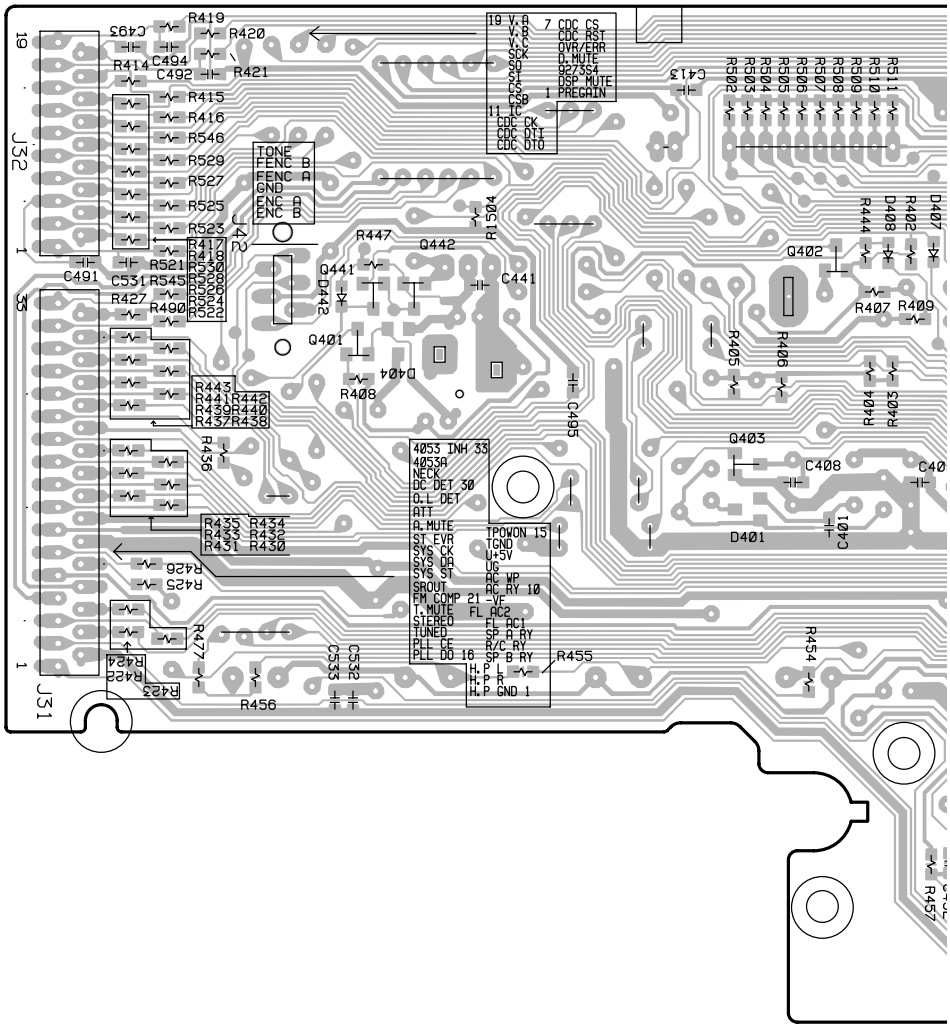
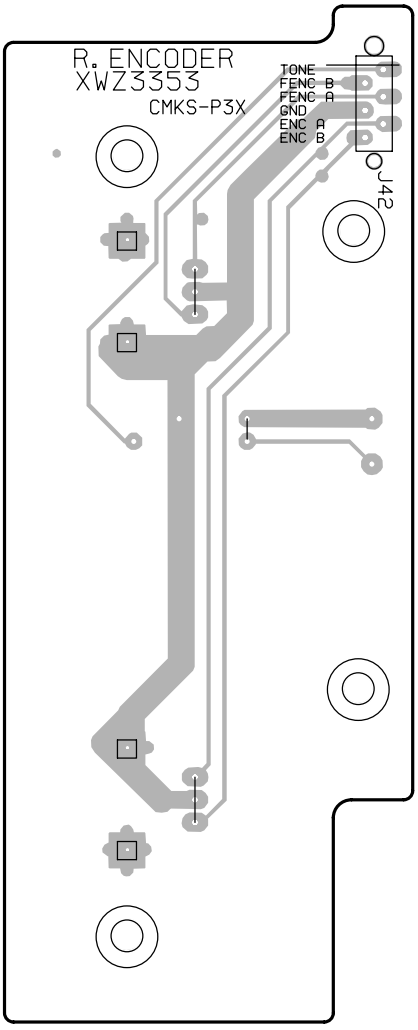
K FRONT ASSY





L R.ENCODER ASSY

(XNP3035-B)

SIDE B

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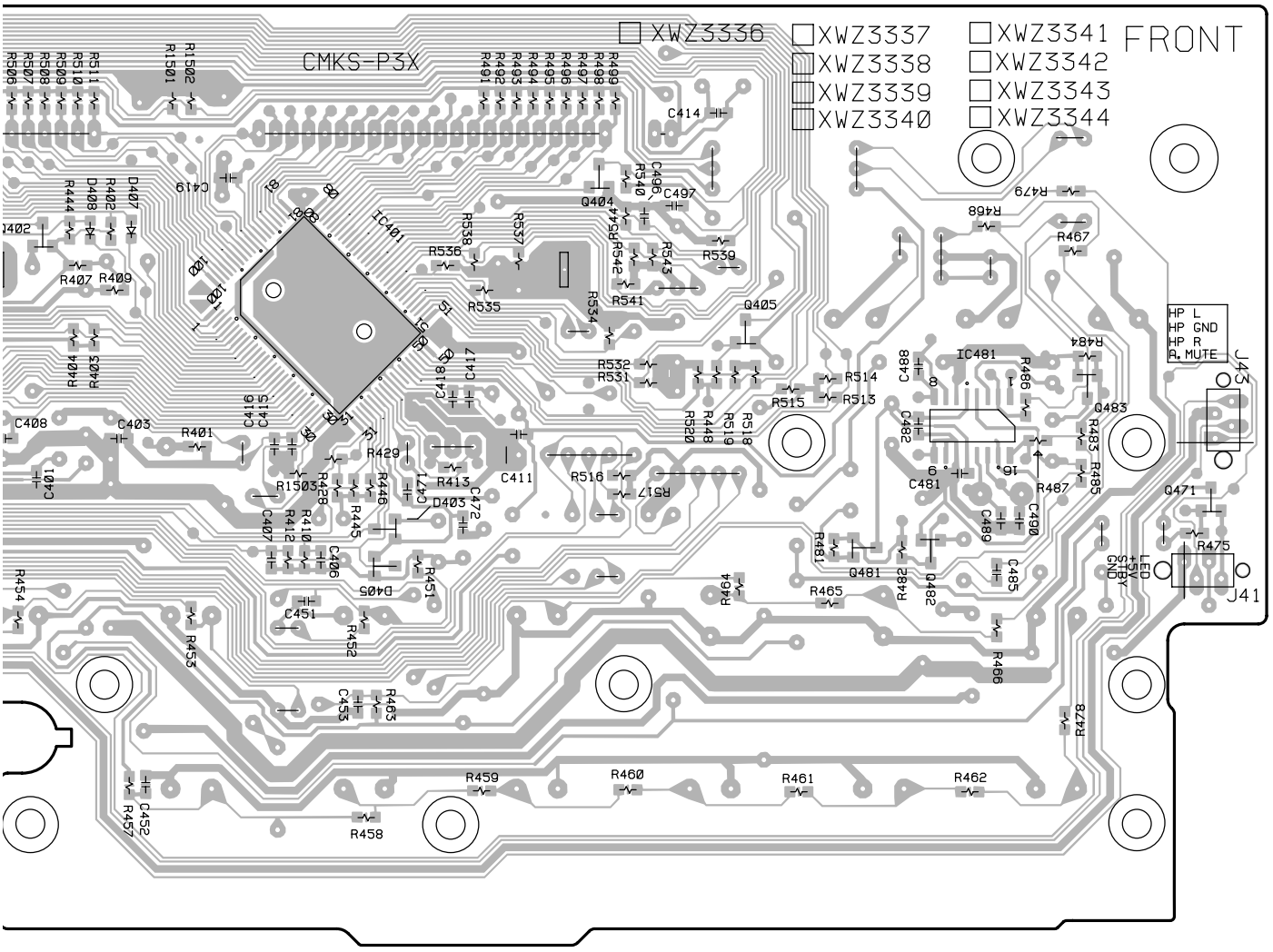
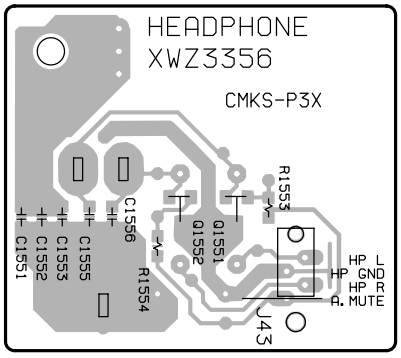
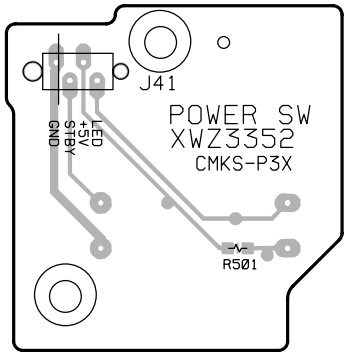


I H.P. ASSY



M POWER SW ASSY



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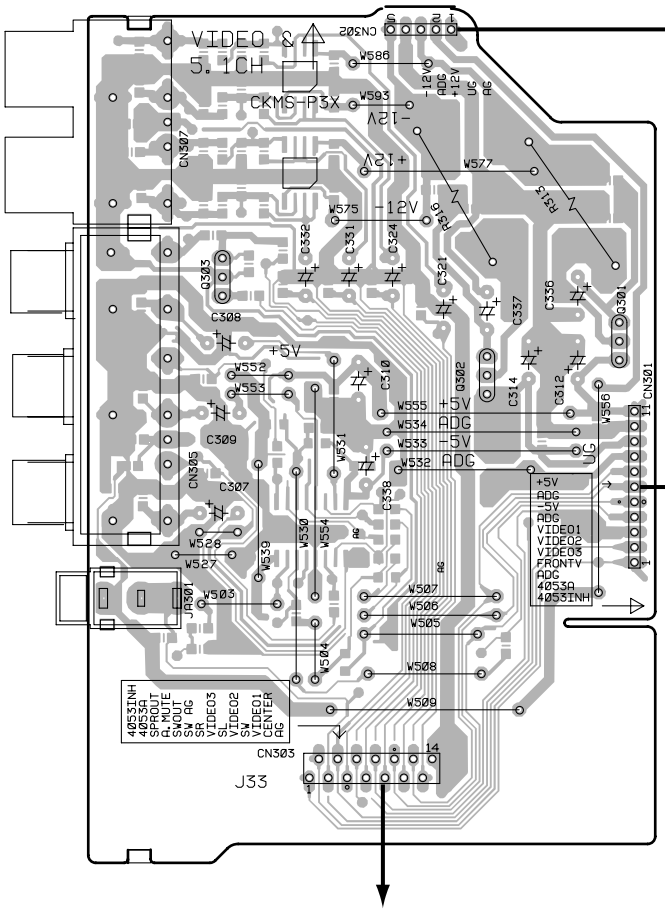
4.6 VIDEO&6CH IN ASSY

H VIDEO&6CH IN ASSY



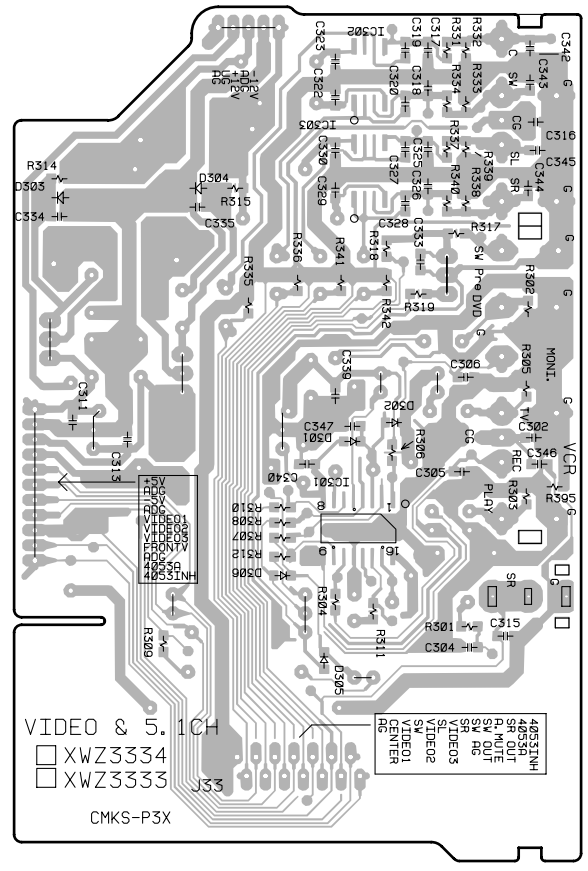
E
CN803

(XNP3035-B)
SIDE A

O
CN390

A
CN104

H VIDEO&6CH IN ASSY



(XNP3035-B)
SIDE B

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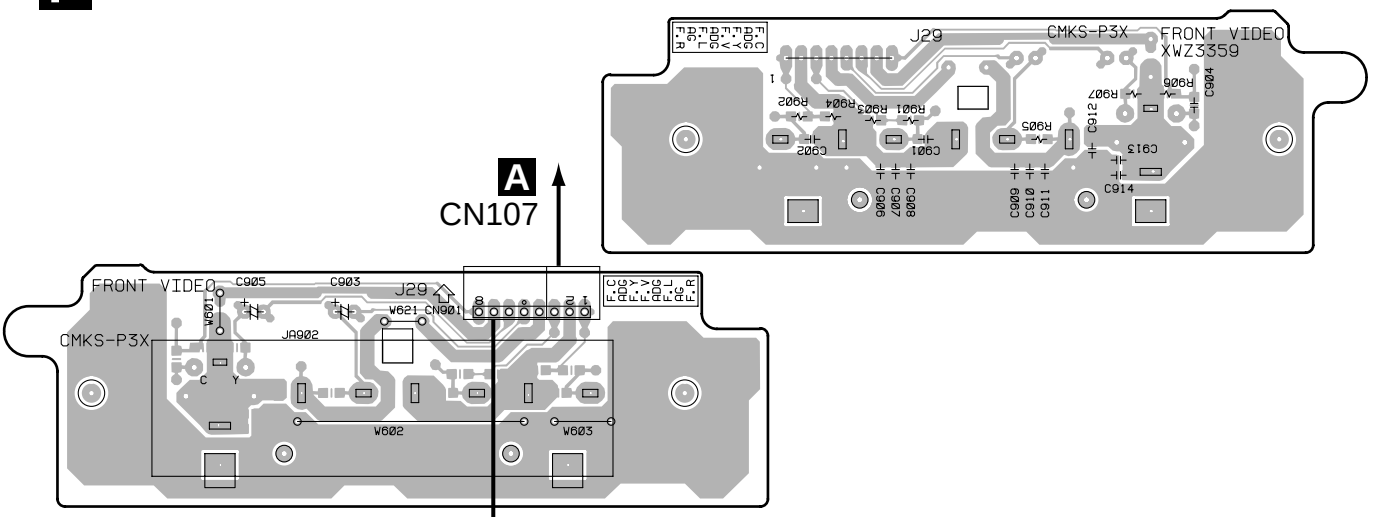
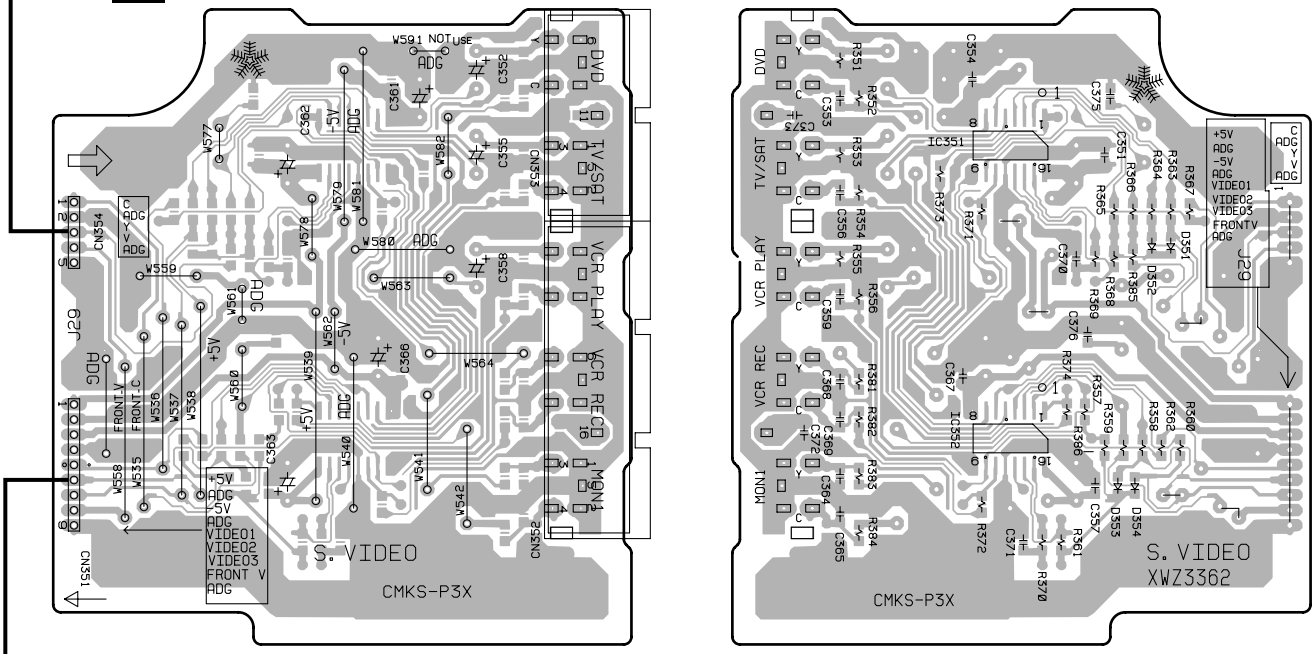
4.7 S.VIDEO, BOARD TO BOARD and FRONT VIDEO ASSYS

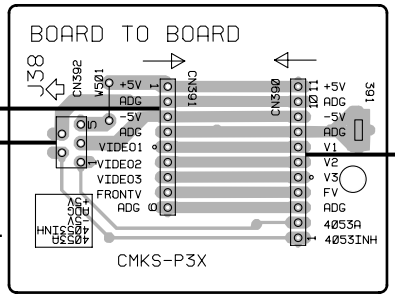
P FRONT VIDEO ASSY



N S. VIDEO ASSY



O BOARD TO BOARD ASSY



Q CN5501

H CN301

(XNP3035-B)
SIDE A

(XNP3035-B)
SIDE B

N O P

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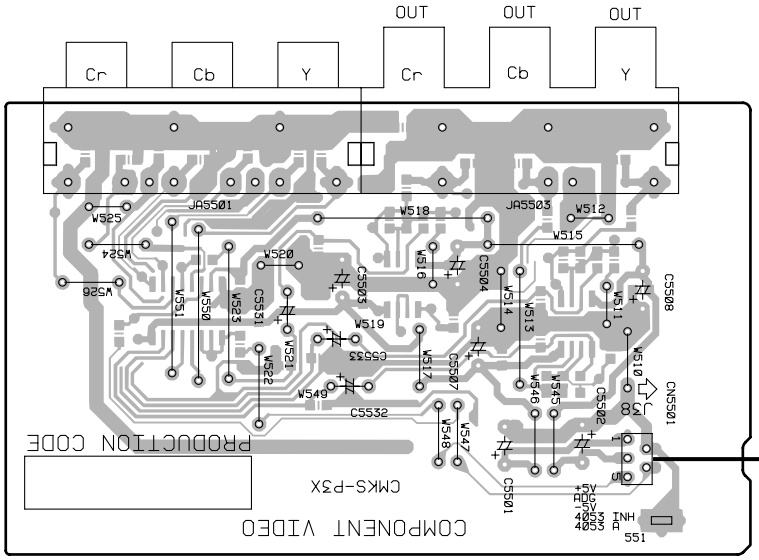
4.8 COMPONENT ASSY

Q COMPONENT ASSY

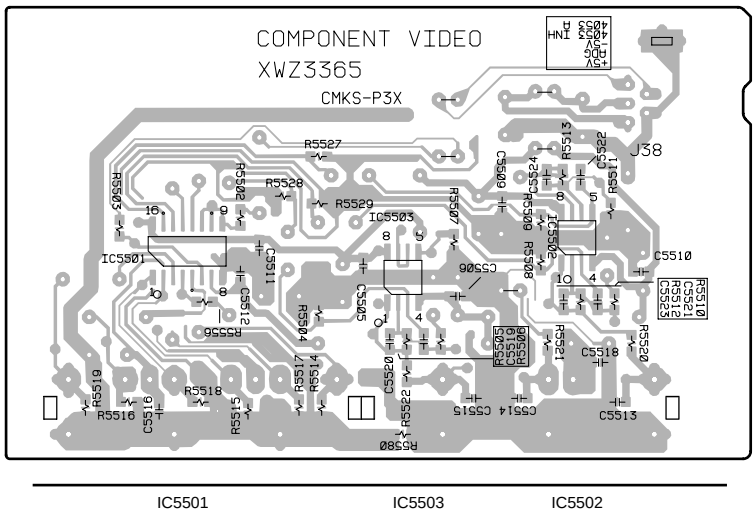


CN392

(XNP3035-B)

SIDE A

Q COMPONENT ASSY



IC5501 IC5503 IC5502

(XNP3035-B)

SIDE B

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5. PCB PARTS LIST

NOTES: ●*The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*

●*When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 × 10¹ → 561 ..... RD1/4PU 5 6 1 J
47k Ω → 47 × 10³ → 473 ..... RD1/4PU 4 7 3 J
0.5 Ω → R50 ..... RN2H R 5 0 K
1 Ω → 1R0 ..... RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 × 10¹ → 5621 ..... RN1/4PC 5 6 2 1 F

Mark	No.	Description	Part No.
NSP		COMPLEX ASSY	XWK3006
		├ VIDEO&6CH IN ASSY	XWZ3334
		├ FRONT ASSY	XWZ3341
		├ POWER SW ASSY	XWZ3352
		├ R.ENCODER ASSY	XWZ3353
		├ H.P. ASSY	XWZ3356
		├ MECHA SW ASSY	XWZ3358
		├ FRONT VIDEO ASSY	XWZ3359
		├ DIGITAL IN ASSY	XWZ3361
		├ S.VIDEO ASSY	XWZ3362
		├ COMPONENT ASSY	XWZ3365
		├ TRANS4 ASSY	XWZ3369
		└ BOARD TO BOARD ASSY	XWZ3370
NSP		AMP&PS ASSY	XWK3020
		├ AMP&PRIMARY ASSY	XWZ3377
		├ REGULATOR ASSY	XWZ3385
		├ AMP INPUT ASSY	XWZ3387
		├ TRANS2 ASSY	XWZ3403
NSP		├ TRANS1 ASSY	XWZ3390
NSP		└ TRANS3 ASSY	XWZ3392
		D.D & INPUT ASSY	XWX3027

COMPLEX ASSY

OTHERS

J 43	JUMPER WIRED	D15A04-075-2651
J 41	JUMPER WIRED	D15A04-125-2651
J 42	JUMPER WIRED	D15A06-075-2651

AMP&PS ASSY

OTHERS

J 44	JUMPER WIRED	D20PYY0325E
J 21	JUMPER WIRED	D20PYY0715E

A D.D & INPUT ASSY

SEMICONDUCTORS

IC1101	CS4226-KQ(J)
IC1301	IS61C256AH-15J
IC108	M5216FP
IC103	M62446FP
IC1001	NJM2100M
IC1602–IC1604, IC1701–IC1705	NJM4558MD
IC1401	PQ20WZ51
IC102	TC9163AF
IC1601	TC9164AF
IC101	TC9273F-007
IC104–IC107	UPC4570G2-TFB
IC1201	YSS912C
Q101, Q102	2SC2412K
Q1001, Q1002, Q105–Q112	2SC3326
Q1601–Q1606	2SC3326
Q1003, Q1101, Q1607, Q1608, Q1610	DTA124EK
Q1004, Q1102, Q1609	DTC124EK
D1601, D1602	1SS181
D103, D105, D106	1SS355
D104	UDZS5.1B
D101, D102	UDZS6.8B

COILS AND FILTERS

L1401 CHIP SOLID INDUCTOR	ATL7002
L101, L1101–L1104, L111, L1111	QTL1013
L112, L1123, L1124, L1203, L1204	QTL1013
L1302, L1601, L1602 CHIP SOLID INDUCTOR	QTL1013

CAPACITORS

C1001, C1002, C101–C114, C1207	CCSRCH101J50
C1209, C121, C1212, C1213	CCSRCH101J50
C1217, C1218, C122, C1221, C1223	CCSRCH101J50
C123, C126–C128, C1303	CCSRCH101J50
C152–C154, C159, C160	CCSRCH101J50
C163, C164, C1640, C1641	CCSRCH101J50
C197, C198, C207, C208	CCSRCH101J50
C1102, C1736	CCSRCH102J50
C1707, C1708, C1721, C1722, C173	CCSRCH151J50
C1735, C174	CCSRCH151J50
C1113, C1114	CCSRCH180J50
C1203, C1204	CCSRCH200J50
C211, C212	CCSRCH220J50
C1601, C1602, C1609, C1610, C167	CCSRCH221J50
C1119, C1623	CCSRCH271J50
C1123, C1124	CCSRCH331J50
C1103, C1104	CCSRCH390J50
C1101, C1106, C1110, C1118, C1130	CCSRCH471J50
C1210, C1603, C1604, C1611, C1612	CCSRCH471J50
C1639	CCSRCH471J50
C130–C137, C146	CEAT100M50
C1116, C1121, C1122, C1201, C1404	CEAT101M10
C157, C175, C176	CEAT101M16
C1112	CEAT1R0M50
C1713, C1714, C1727, C1728	CEAT220M25

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Mark	No.	Description	Part No.
	C1739, C1740		CEAT220M25
	C1005, C1202		CEAT221M6R3
	C144, C145, C147–C151, C205		CEAT3R3M50
	C117, C118, C161, C162		CEAT470M25
	C165, C166, C169		CEAT470M25
	C155, C156		CEAT471M10
	C1003, C1004, C115, C116, C1401		CEAT4R7M50
	C1605, C1606, C1613, C1614		CEAT4R7M50
	C1625, C1626, C170, C194, C195		CEAT4R7M50
	C201		CEAT4R7M50
	C1115		CEATR47M50
	C1301		CEJQ101M10
	C1007, C1008		CEJQNP100M10
	C1108, C140, C143		CKSQYB224K16
	C1006, C1128, C1129, C1132, C1134		CKSRYB103K50
	C119, C120, C1205, C1206, C1208		CKSRYB103K50
	C1211, C1214–C1216, C1220, C1222		CKSRYB103K50
	C124, C125, C1302, C158		CKSRYB103K50
	C1607, C1608, C1619, C1620		CKSRYB103K50
	C1629, C1630, C1636, C1637, C1642		CKSRYB103K50
	C1709, C171, C1710–C1712, C172		CKSRYB103K50
	C1723–C1726, C1737, C1738		CKSRYB103K50
	C177–C180, C183, C186–C193		CKSRYB103K50
	C199		CKSRYB103K50
	C1135, C1136, C1705, C1706		CKSRYB104K16
	C1719, C1720, C1733, C1734		CKSRYB104K16
	C1621		CKSRYB122K50
	C168		CKSRYB152K50
	C139, C142		CKSRYB153K50
	C1615–C1618, C1627, C1703, C1704		CKSRYB222K50
	C1717, C1718, C1731		CKSRYB222K50
	C1107		CKSRYB223K50
	C1701, C1702, C1715, C1716, C1729		CKSRYB682K50
	C1732		CKSRYB682K50
	C138, C141		CKSRYB822K50
	C1105, C1109, C1226, C1227, C1230		CKSRYF104Z16
	C1232, C202		CKSRYF104Z16
	C1009, C1111, C1117, C1133, C1219		CKSRYF104Z25
	C1224, C1225, C1228, C1229, C1231		CKSRYF104Z25
	C1304, C1631, C1632, C209		CKSRYF104Z25
	C1628		CKSRYF104Z50
	C184, C185		CKSRYF473Z50

RESISTORS

Mark			
⚠	R174, R175		RS1LMF101J
	Other Resistors		RS1/16S□□□J

OTHERS

	CN1501	CONNECTOR 6P	52045-0645
	CN105	CONNECTOR 13P	52045-1345
	CN104	CONNECTOR 14P	52045-1445
	CN106	CONNECTOR 17P	52045-1745
	CN103	CONNECTOR 19P	52045-1945
	CN102	CONNECTOR 33P	52045-3345
	JA101–JA104	PIN JACK (4P)	AKB7048
	CN107	CONNECTOR POST	B3B-PH-K
	CN101	19P SOCKET	KP200TA19L
	101, 102	PCB BINDER	VEF1040
	X1101	CRYSTAL RESONATOR (18.432MHz)	RSS1052
	X1201	CRYSTAL RESONATOR (12.288MHz)	VSS1140

Mark	No.	Description	Part No.

B AMP&PRIMARY ASSY

SEMICONDUCTORS

	IC52	PROTECTOR (315mA)	AEK7003
⚠	IC603	PROTECTOR (1A)	AEK7009
⚠	IC604–IC607	PROTECTOR (10A)	AEK7022
	IC51		NJM78M56FA
⚠	IC601		PAC010A
⚠	IC602		PAC011A
	Q703		2SA1145
	Q702		2SB1238X
	Q691, Q692		2SC1740S
	Q704		2SC1845
	Q605, Q606, Q633, Q655, Q656		2SC2240
	Q601–Q604, Q631, Q632		2SC2878
	Q651–Q654		2SC2878
	Q701		2SD1859X
	Q51		KRC101M
	D56, D57, D601–D604		1SS133
	D631, D632, D651–D654		1SS133
	D751, D752, D755–D758		1SS133
⚠	D701, D702		D5SBA20(B)
	D711		MTZJ22D
	D58		MTZJ5.1A
	D712		MTZJ5.1B
	D605, D606, D633, D634		MTZJ8.2A
⚠	D51–D55, D721–D724		S5688G

COILS AND FILTERS

⚠	L51	LINE FILTER	ATF7018
	L751–L753, L761, L762	COIL	ATH1004

SWITCHES AND RELAYS

	RY751–RY754	RELAY	XSR3002
⚠	RY51	JOE LOWPOWER RELAY	XSR3003

CAPACITORS

	C707, C708	(0.01µF/AC250V)	ACG1005
⚠	C51, C52	(10000pF/AC250V)	ACG7020
	C701, C702	(4700µF/63V)	ACH7134
	C703, C704	(3300µF/42V)	ACH7135
	C613, C614, C637, C663, C664		CCCSL101J50
	C607–C610, C634, C635		CCCSL6R0D50
	C657–C660		CCCSL6R0D50
	C615, C616, C638, C665, C666		CEANP2R2M50
	C705, C706		CEAT100M2A
	C712		CEAT101M10
	C611, C612, C636, C661, C662		CEAT101M16
	C711		CEAT101M35
	C53		CEAT102M16
	C692		CEAT221M10
	C54		CEAT470M25
	C605, C606, C633, C655, C656		CEAT4R7M50
	C751–C756, C761–C764		CFTYA224J50
	C55–C57		CGCYX103M25
	C601, C602, C631, C651, C652		CKCYB102K50
	C691		CKCYB102K50
	C603, C604, C632, C653, C654		CKCYB331K50
	C769, C770		CKPUYB102K50
	C757–C759, C765–C768		CQMBA472J50

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Mark	No.	Description	Part No.
RESISTORS			
⚠	R52		RD1/2PM270J
⚠	R751, R752, R755, R761, R762		RD1/4PUF101J
⚠	R753, R754, R756, R763, R764		RS1LMF4R7J
⚠	R711		RS2LMF332J
⚠	R615, R616, R638, R665, R666	(0.22Ω/5W)	XCN3001
	Other Resistors		RD1/4PU□□□J
OTHERS			
	52	3P CABLE HOLDER	51048-0300
	701	7P CABLE HOLDER	51048-0700
	CN53	22P CONNECTOR	52045-2245
	CN752	SPEAKER TERMINAL 8-P	AKE7059
	CN751	SPEAKER TERMINAL 6-P	AKE7061
	H51, H52	FUSE CLIP	AKR7001
⚠	T51	STANDBY TRANSFORMER	ATT7037
	CN601	16P PLUG	KM200TA16
	CN51	AC CODE SOCKET	RKP1751
	KN51, KN601	EARTH METAL FITTING	VNF1084
	CN753	PIN JACK 1-P	XKB3008

C TRANS2 ASSY

Mark	No.	Description	Part No.
SEMICONDUCTORS			
⚠	IC853	PROTECTOR (1.6A)	AEK7012
⚠	IC851, IC852	PROTECTOR (4A)	AEK7018
OTHERS			
	851	7P CABLE HOLDER	51048-0700

D TRANS3 ASSY

TRANS3 ASSY has no service part.

E REGULATOR ASSY

Mark	No.	Description	Part No.
SEMICONDUCTORS			
	IC803, IC804		NJM78M05FA
	IC801		NJM78M12FA
	IC802		NJM79M12FA
	Q801, Q803, Q805		KRA103M
	Q802, Q804, Q806		KRC101M
⚠	D801–D804		S5688G
CAPACITORS			
	C808, C811		CEAT101M10
	C805, C806		CEAT101M16
	C809		CEAT222M16
	C801, C802		CEAT222M25
	C803, C804, C807, C810		CGCYX103M25
RESISTORS			
	R801		RS3LMF101J
OTHERS			
	CN801	22P CONNECTOR	52045-2245
	CN802	19P PLUG	KM200TA19
	CN803	5P PLUG	KM200TA5

F AMP INPUT ASSY

Mark	No.	Description	Part No.
SEMICONDUCTORS			
	IC251		NJM4558D-D
	Q257		2SA933S
	Q251, Q256		2SC2878
	Q252		2SD1858X
	Q254		KRA103M
	Q253, Q255		KRC103M
	D251, D252		1SS133
	D253		MTZJ27D
	D254		MTZJ5.1B
CAPACITORS			
	C251		CEANP470M25
	C254		CEAT101M25
	C252, C253		CKPUYF103Z25
RESISTORS			
	All Resistors		RD1/4PU□□□J
OTHERS			
	CN251	3P CONNECTOR	52044-0345
	CN254	17P CONNECTOR	52044-1745
	CN252	PLUG 3-P	KM250MA3L
	CN253	16P SOCKET	KP200TA16L

GA TRANS1 ASSY

TRANS1 ASSY has no service part.

GB MECHA SW ASSY

Mark	No.	Description	Part No.
SWITCHES AND RELAYS			
	S591		ASG7014
CAPACITORS			
	C591, C592		CKSQYF103Z50
OTHERS			
	CN591	3PJUMPER CONNECTOR	52151-0310

GC TRANS4 ASSY

Mark	No.	Description	Part No.
SEMICONDUCTORS			
	IC891, IC892	PROTECTOR (630mA)	AEK7006
	D891		S1WB(A)60SD
CAPACITORS			
	C891, C892		CEAT471M35
OTHERS			
	CN891	3P CONNECTOR	52045-0345

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Mark	No.	Description	Part No.

H VIDEO&6CH IN ASSY

SEMICONDUCTORS

	IC301	NJM2296M
	IC302, IC303	NJM4558MD
	Q302	2SA1515
	Q303	2SC2878
	Q301	2SC3377
	D301, D302, D305, D306	1SS355
	D303, D304	UDZS6.2B

CAPACITORS

	C319, C320, C327, C328	CCSRCH101J50
	C342–C345	CCSRCH101J50
	C347	CCSRCH470J50
	C307–C310, C312, C314, C338	CEAT470M25
	C321, C324, C331, C332	CEAT4R7M50
	C302, C315, C316, C322, C323	CKSRYB103K50
	C329, C330, C346	CKSRYB103K50
	C339, C340	CKSRYB104K25
	C304–C306, C317, C318	CKSRYB221K50
	C325, C326	CKSRYB221K50
	C333	CKSRYB331K50
	C311, C313	CKSRYB473K25

RESISTORS

	R313, R316	RS3LMF390J
	Other Resistors	RS1/16S□□□J

OTHERS

	CN303	14P CONNECTOR	52044-1445
	CN307	PIN JACK (4P)	AKB7087
	CN305	6P PIN JACK	AKB7123
	CN301	11P SOCKET	KP200TA11L
	CN302	5P SOCKET	KP200TA5L
	JA301	JACK	RKN1004

I H.P. ASSY

SEMICONDUCTORS

	Q1551, Q1552	2SC3326

CAPACITORS

	C1553	CCSRCH471J50
	C1552	CKSRYB103K50
	C1551	CKSRYB104K16
	C1555, C1556	CKSRYB223K50

RESISTORS

⚠	R1551, R1552	RS1/2LMF121J
	Other Resistors	RS1/16S□□□J

OTHERS

	1551	CABLE HOLDER(4P)	51063-0405
	JA1551	JACK	RKN1002
	KN1551	EARTH METAL FITTING	VNF1084

Mark	No.	Description	Part No.

J DIGITAL IN ASSY

SEMICONDUCTORS

	IC1901	TC74ACT151F
	IC1902	TC74HCU04AF

COILS AND FILTERS

	F1901–F1904	CHIP BEAD	DTF1067

CAPACITORS

	C1917	CCSRCH220J50
	C1918	CCSRCH221J50
	C1907, C1914	CCSRCH271J50
	C1916	CCSRCH471J50
	C1911	CCSRCH560J50
	C1904, C1905, C1912	CEAT101M10
	C1915	CKSRYB102K50
	C1906, C1910, C1913, C1919, C1920	CKSRYB103K50
	C1901–C1903, C1908, C1909	CKSRYB104K25
	C1921, C1922	CKSRYB104K25

RESISTORS

	All Resistors	RS1/16S□□□J

OTHERS

	CN1901	CONNECTOR 6P	52045-0645
	JA1902, JA1903	OPTICAL RECEIV MOD.	GP1F32R
	JA1904	OPTICAL LINK OUT	GP1F32T
	JA1901	JACK	VKB1077

K FRONT ASSY

SEMICONDUCTORS

	IC481	BU1923F
	IC401	PDG260A
	Q405, Q481	2SA1037K
	Q483	2SC3326
	Q401, Q402, Q442, Q471	DTA124EK
	Q403, Q404, Q441, Q482	DTC143EK
	D407, D408, D442	1SS355
	D403, D405	DAN217
	D401, D404	DAP202K

COILS AND FILTERS

	L401, L481	LFEA2R2J

SWITCHES AND RELAYS

	S451–S468, S476	ASG1051

CAPACITORS

	C420	(220µF/35V)	ACH7101
	C404	(0.047F/5.5V)	ACH7132
	C489, C490		CCSRCH270J50
	C488		CCSRCH561J50
	C483		CEAT101M10
	C402		CEAT221M6R3
	C409, C410, C484		CEAT2R2M50
	C412		CEAT470M50
	C486		CEATR10M50
	C405		CEJQ221M6R3

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Mark	No.	Description	Part No.
	C442		CEJQ470M10
	C451–C453, C481, C482, C495		CKSRYB102K50
	C401, C403, C411, C419, C441		CKSRYB103K50
	C531		CKSRYB103K50
	C408, C416, C418, C471		CKSRYB104K16
	C491–C494, C497		CKSRYB104K16
	C496		CKSRYB104K25
	C532		CKSRYB223K25
	C485		CKSRYB472K50
	C406, C407		CKSRYB473K16

RESISTORS

	All Resistors	RS1/16S□□□J

OTHERS

403, 471	CABLE HOLDER (4P)	51063-0405
404	CABLE HOLDER (6P)	51063-0605
CN401	19P CONNECTOR	52044-1945
CN402	33P CONNECTOR	52044-3345
V401	FL TUBE	XAV3010
X481	CRYSTAL RESONATOR (4.332MHz)	ASS7004
X401	CERAMIC RESONATOR (7.2MHz)	ASS7018
401	REMOTE RECEIVER UNIT	GP1U28X

L R.ENCODER ASSY

SWITCHES AND RELAYS

S511		ASG1051
S513	ROTARY ENCODER	XSX3005
S512	ROTARY ENCODER	XSX3006

OTHERS

511	CABLE HOLDER (6P)	51063-0605

M POWER SW ASSY

SEMICONDUCTORS

D501	BR3371XJ30A

SWITCHES AND RELAYS

S501	ASG1051

RESISTORS

All Resistors	RS1/16S□□□J

OTHERS

501	CABLE HOLDER (4P)	51063-0405

N S. VIDEO ASSY

SEMICONDUCTORS

IC351, IC352	NJM2296M
D351–D354	1SS355

CAPACITORS

C375, C376	CCSRCH470J50
C352, C355, C358, C361–C363	CEAT470M25
C366	CEAT470M25
C372, C373	CKSRYB103K50
C351, C353, C354, C356, C357	CKSRYB104K25
C359, C367	CKSRYB104K25
C364, C365, C368–C371	CKSRYB221K50

RESISTORS

All Resistors	RS1/16S□□□J

OTHERS

CN353	SOCKET	AKP7020
CN352	SOCKET	AKP7043
CN354	CONNECTOR POST	B5B-PH-K
CN351	9P SOCKET	KP200TA9L

O BOARD TO BOARD ASSY

OTHERS

CN392	CONNECTOR	52045-0545
CN390	11P PLUG	KM200TA11
CN391	9P PLUG	KM200TA9

P FRONT VIDEO ASSY

CAPACITORS

C903, C905	CEJQ470M25
C908, C911, C914	CKSRYB103K50
C904, C906, C909, C912	CKSRYB104K25
C901, C902	CKSRYB221K50
C907, C910, C913	CKSRYB471K50

RESISTORS

All Resistors	RS1/16S□□□J

OTHERS

JA902	PIN JACK (4P)	AKX7014
CN901	CONNECTOR	S8B-PH-K-S

Q COMPONENT ASSY

SEMICONDUCTORS

IC5501	TC74HC4053AF
IC5502, IC5503	TK15420M

CAPACITORS

C5501–C5504, C5507, C5508	CEAT101M10
C5505, C5506, C5509–C5512, C5516	CKSRYB103K50
C5518	CKSRYB103K50

RESISTORS

All Resistors	RS1/16S□□□J

OTHERS

CN5501	CONNECTOR	52045-0545
JA5503	3P RCA PINJACK	AKB7124
JA5501	6P RCA PINJACK	AKB7128

6. ADJUSTMENT

There is no information to be shown in this chapter.

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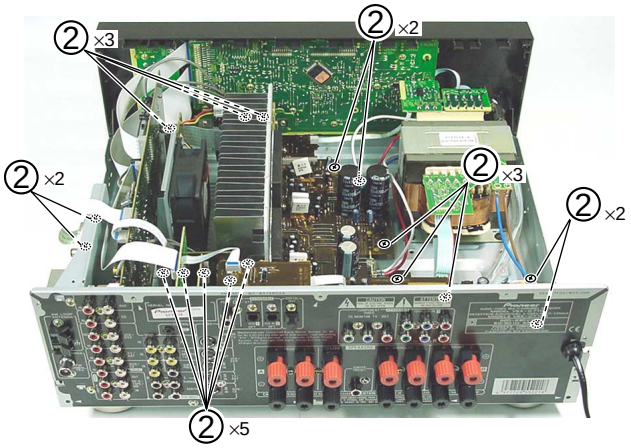
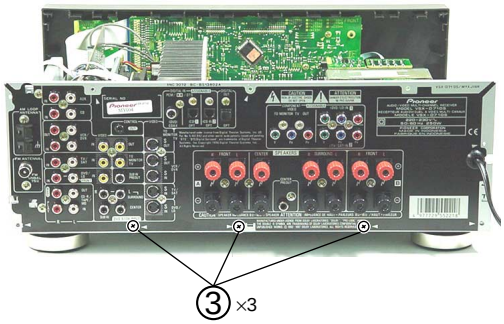
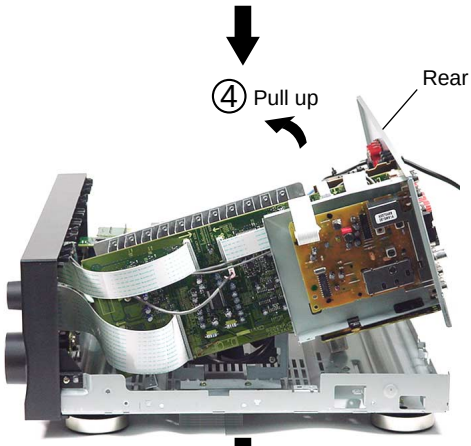
7. GENERAL INFORMATION
7.1 DISASSEMBLY AND DIAGNOSIS
■ Diagnosis

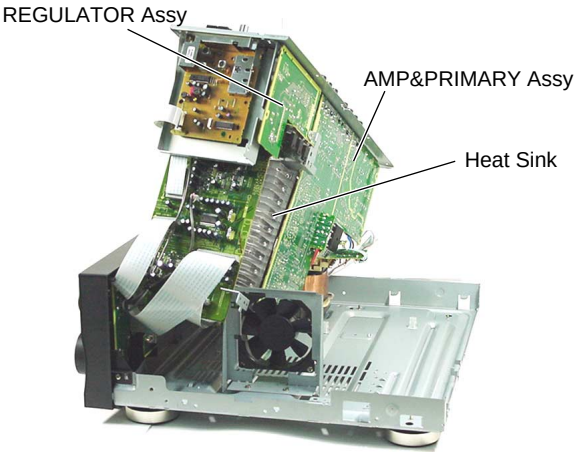
① Remove the Bonnet (seven screws).





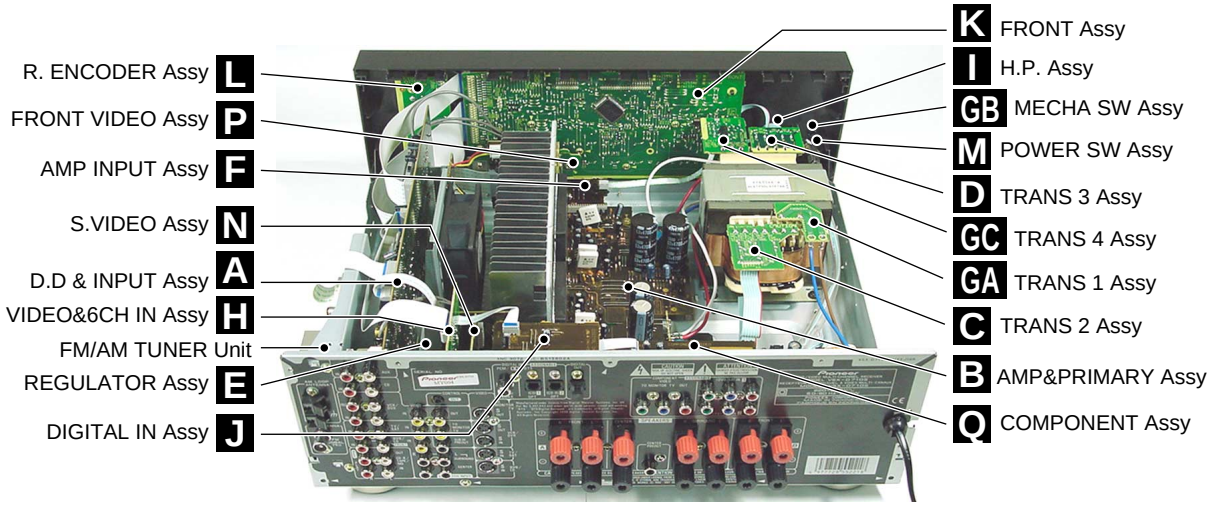


⑤ Diagnosis



Note : The product does not operate when took off the screws of Speaker Terminal from Rear Panel.

■ PCB Location



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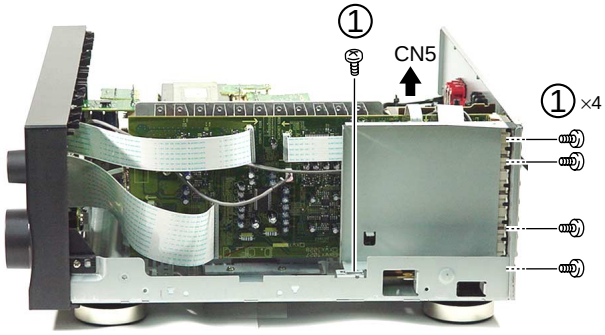
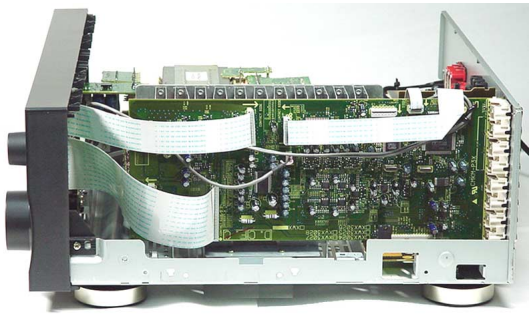
■ Diagnosis of D.D & INPUT Assy

① Remove FM/AM TUNER Unit and Shield R3 (five screws).

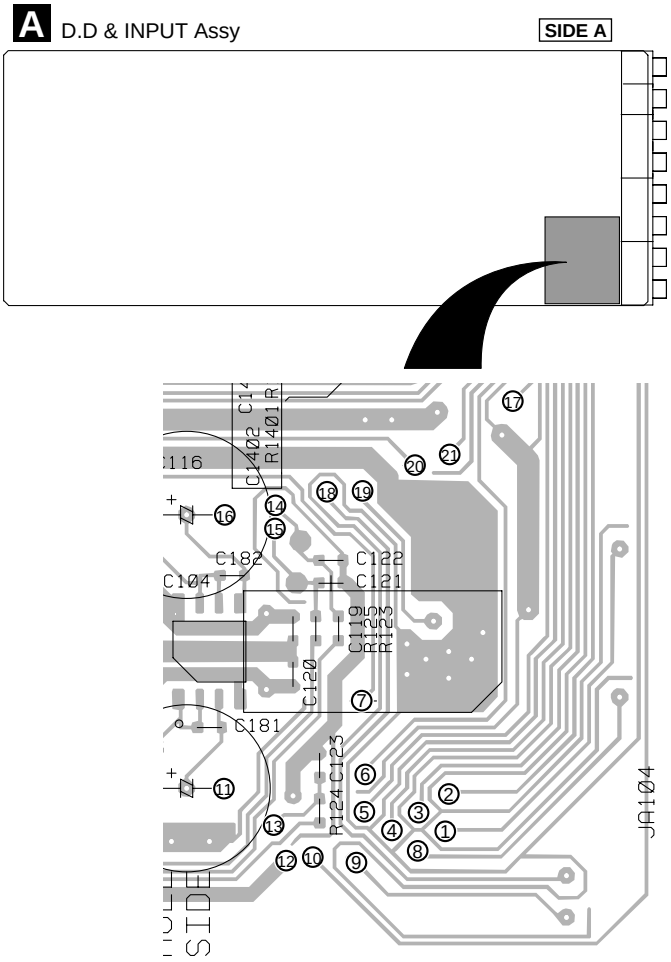




② Please check SIDE A of the D.D & INPUT Assy on this status.

Note : When FM/AM TUNER Unit was removed,
the product operates except FM/AM TUNER.

Please check IC101 mounted on SIDE B from SIDE A.
The Pin number points on SIDE A of IC101 are shown as follows.



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7.2 PARTS

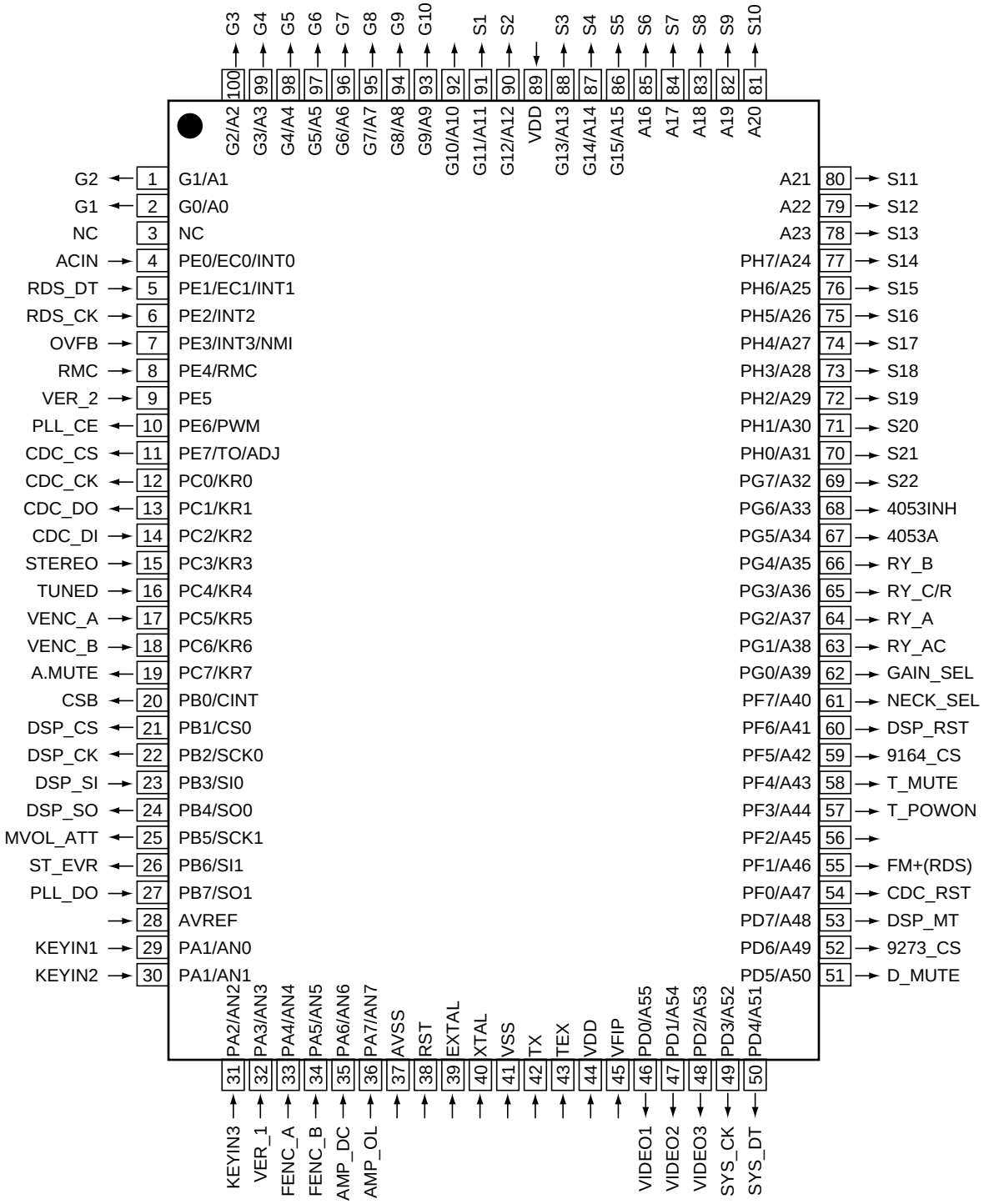
7.2.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

■ PDG260A (FRONT ASSY : IC401)

• System Control MCU

● Pin Arrangement (Top View)



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● Pin Function

No.	Pin Name	I/O	Pin Function	Active
1	G2	O	Grid output 2	H
2	G1	O	Grid output 1	H
3	NC	–	Connect to VDD	
4	ACIN	I	AC pulse input	
5	RDS_DT	I	Serial control DATA signal of RDS communication	
6	RDS_CK	I	Serial control CLOCK signal of RDS communication	
7	DIRLOCK	I	ERR/OVER input from CODEC	
8	RMC	I	Remote control signal input (no-carrier signal)	
9	VER_2	I	Destination switch 2	
10	PLL_CE	O	Chip select signal for communication with LC72131 (tuner)	H
11	CDC_CS	O	CODEC chip serect	
12	CDC_CK	O	CODEC, TC9164 control clock	
13	CDC_DO	O	CODEC, TC9164 control data output	
14	CDC_DI	I	Data input from CODEC	
15	STEREO	I	Stereo/Monoral signal judgment signal	
16	TUNED	I	TUNED information	
17	ENC_A	I	EVOL Rotary encoder signal input A	
18	ENC_B	I	EVOL Rotary encoder signal input B	
19	AMUTE	O	Audio mute	L
20	CSB	O	Chip select for control of YSS912 sub DSP	L
21	DSP_CS	O	Chip select for control of YSS912 main DSP	L
22	DSP_CK	O	Clock signal for communication with YSS912	H
23	DSP_SI	I	DATA input signal for communication with YSS912	
24	DSP_SO	O	DATA output signal for communication with YSS912	H
25	MVRATT	O	ATT control of master volume (L : Less than -15dB)	H
26	ST_EVR	O	Strobe signal for communication with electric volume IC	H
27	PLL_DO	I	Data input signal for communication with LC72131 (tuner)	
28	AVref	–	Connect to VDD	
29	KEYIN1	I	Key input A/D conversion port 1	
30	KEYIN2	I	Key input A/D conversion port 2	
31	KEYIN3	I	Key input A/D conversion port 3	
32	VER_1	I	Destination switch (A/D input)	
33	FENC_A	I	FUNC Rotary encoder signal input A	
34	FENC_B	I	FUNC Rotary encoder signal input B	
35	AMP_DC	I	DC abnormality detection of protection circuit (L : Abnormality detection) *1	L
36	AMP_OL	I	Over-load detection of protection circuit (L : Abnormality detection) *2	L
37	AVSS	–	Connect to VSS	
38	RST	–	Reset	
39	EXTAL	–	Connect to the oscillator (7.2MHz)	
40	XTAL	–		
41	VSS	–	Connect to VSS	
42	TX	–	Open	
43	TEX	–	Connect to VSS	
44	VDD	–	+5V	
45	VFDP	–	-30V	
46	VIDEO1	O	NJM2296D control	H
47	VIDEO2			
48	VIDEO3			
49	SYS_DT	O	Data signal for communication with M62446, TC9163, TC9164 and PLL	H
50	SYS_CK	O	Clock signal for communication with M62446, TC9163, TC9164 and PLL	H

*1 : When DC voltage was output from amplifier, "POWER OFF" is displayed at FL display.
*2 : When the output of amplifier became overload state, "OVER LOAD" is displayed at FL display.

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No.	Pin Name	I/O	Pin Function	Active
51	D_MUTE	O	Digital mute (Not used)	H
52	9273_CS	O	TC9273 Chip select	H
53	DSP_MT	O	DSP mute (ASSY mute)	H
54	CDC_RST	O	CODEC reset	H
55	FM+(RDS)	O	Tr switch ON/OFF for power supply of RDS decoder (L : AM, power OFF , H : Other)	H
56	Not used	–		
57	T_POWON	O	Tuner module ON/OFF (North America model only)	H
58	T_MUTE	O	Tuner mute	H
59	9164 CS	O	TC9163, TC9164 Chip select	
60	DSP_RST	O	YSS912 reset	
61	NECK_SEL	O	5.1ch, surround mode and A+B Stereo : H / Stereo : L	
62	GAIN_SEL	O	Gain select (5.1ch and Stereo of analog input : H)	H
63	RY_AC	O	AC relay ON/OFF	H
64	RY_A	O	Speaker A relay ON/OFF	H
65	RY_C/R	O	Rear/Center Speaker relay ON/OFF	H
66	RY_B	O	Speaker B relay ON/OFF	H
67	4053A	O	Component terminal control	H
68	4053INH	O	Component terminal control	H
69	S22	O	Segment output 22	H
70	S21		Segment output 21	
71	S20		Segment output 20	
72	S19		Segment output 19	
73	S18		Segment output 18	
74	S17		Segment output 17	
75	S16		Segment output 16	
76	S15		Segment output 15	
77	S14		Segment output 14	
78	S13		Segment output 13	
79	S12		Segment output 12	
80	S11		Segment output 11	
81	S10		Segment output 10	
82	S9		Segment output 9	
83	S8		Segment output 8	
84	S7		Segment output 7	
85	S6		Segment output 6	
86	S5		Segment output 5	
87	S4		Segment output 4	
88	S3		Segment output 3	
89	VDD	–	5V	
90	S2	O	Segment output 2	H
91	S1		Segment output 1	
92	Not used	O	Not used (Fixed Vfdp)	
93	G10	O	Grid output 10	H
94	G9		Grid output 9	
95	G8		Grid output 8	
96	G7		Grid output 7	
97	G6		Grid output 6	
98	G5		Grid output 5	
99	G4		Grid output 4	
100	G3		Grid output 3	

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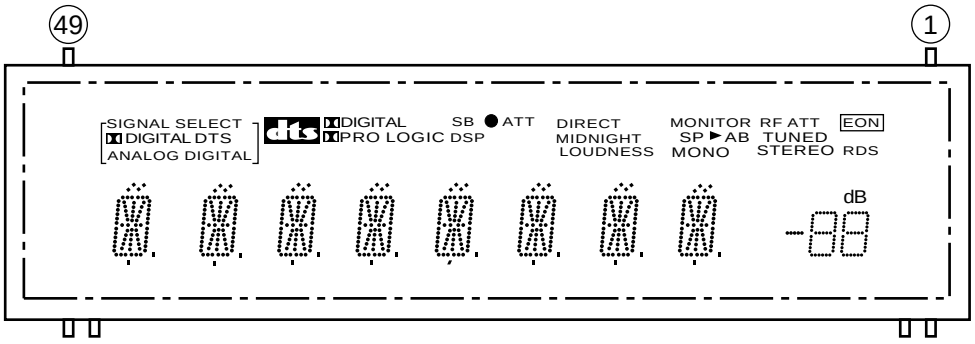
7.2.2 DISPLAY

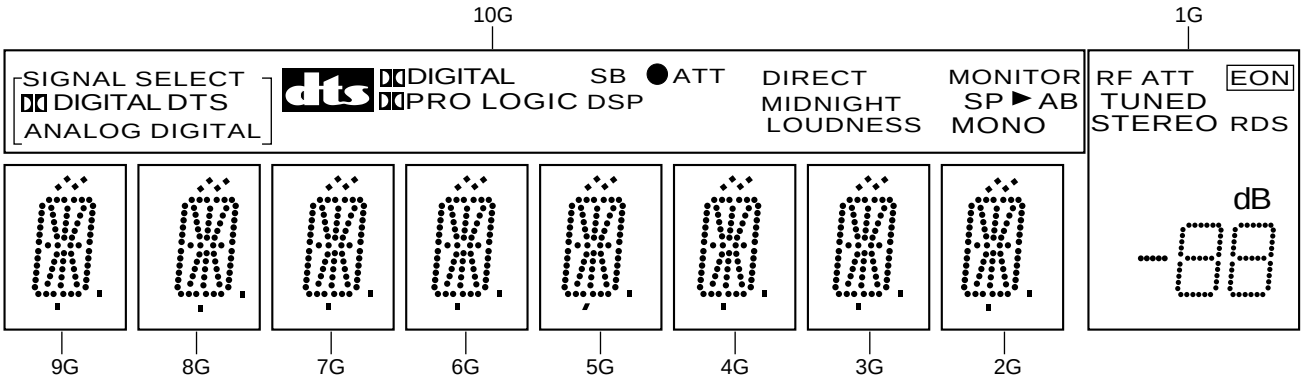
■ XAV3010 (FRONT ASSY : V401)

• FL DISPLAY

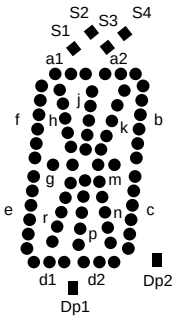
• Pin Assignment



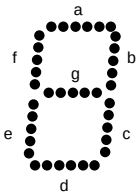
• Grid Assignment



• Segment Designation



(9G to 2G)



(1G)

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• Pin Connection

Pin No.	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25
Connection	F2	F2	NP	NP	P22	P21	P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2
Pin No.	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
Connection	P1	NX	NX	NX	NX	NX	NX	NX	NX	NX	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F1	F1	

NOTE 1) F1, F2..... Filament
2) NP..... No pin
3) NX..... No extend pin
4) DL..... Datum Line
5) 1G to 10G..... Grid
6) Field of vision is a minimum of 29° from the lower side.

• Anode Connection

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	MONO	a1	a1	a1	a1	a1	a1	a1	a1	dB
P2	B	a2	a2	a2	a2	a2	a2	a2	a2	2a
P3	A	h	h	h	h	h	h	h	h	2b
P4	SP ►	j	j	j	j	j	j	j	j	2f
P5	MONITOR	k	k	k	k	k	k	k	k	2g
P6	LOUDNESS	b	b	b	b	b	b	b	b	2c
P7	MIDNIGHT	f	f	f	f	f	f	f	f	2e
P8	DIRECT	m	m	m	m	m	m	m	m	2d
P9	DNR	g	g	g	g	g	g	g	g	1a
P10	ATT	c	c	c	c	c	c	c	c	1b
P11	●	e	e	e	e	e	e	e	e	1f
P12	DSP	r	r	r	r	r	r	r	r	1g
P13	SB	p	p	p	p	p	p	p	p	1c
P14	PRO LOGIC	n	n	n	n	n	n	n	n	1e
P15	DIGITAL	d1	d1	d1	d1	d1	d1	d1	d1	1d
P16	dts	d2	d2	d2	d2	d2	d2	d2	d2	•••••
P17	ANALOG	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	RDS
P18	DIGITAL	Dp1	Dp1	Dp1	Dp1	Dp1	Dp1	Dp1	Dp1	RF ATT
P19	[ ]	S1	S1	S1	S1	S1	S1	S1	S1	EON
P20	DTS	S4	S4	S4	S4	S4	S4	S4	S4	▭
P21	DIGITAL	S2	S2	S2	S2	S2	S2	S2	S2	TUNED
P22	SIGNAL SELECT	S3	S3	S3	S3	S3	S3	S3	S3	STEREO

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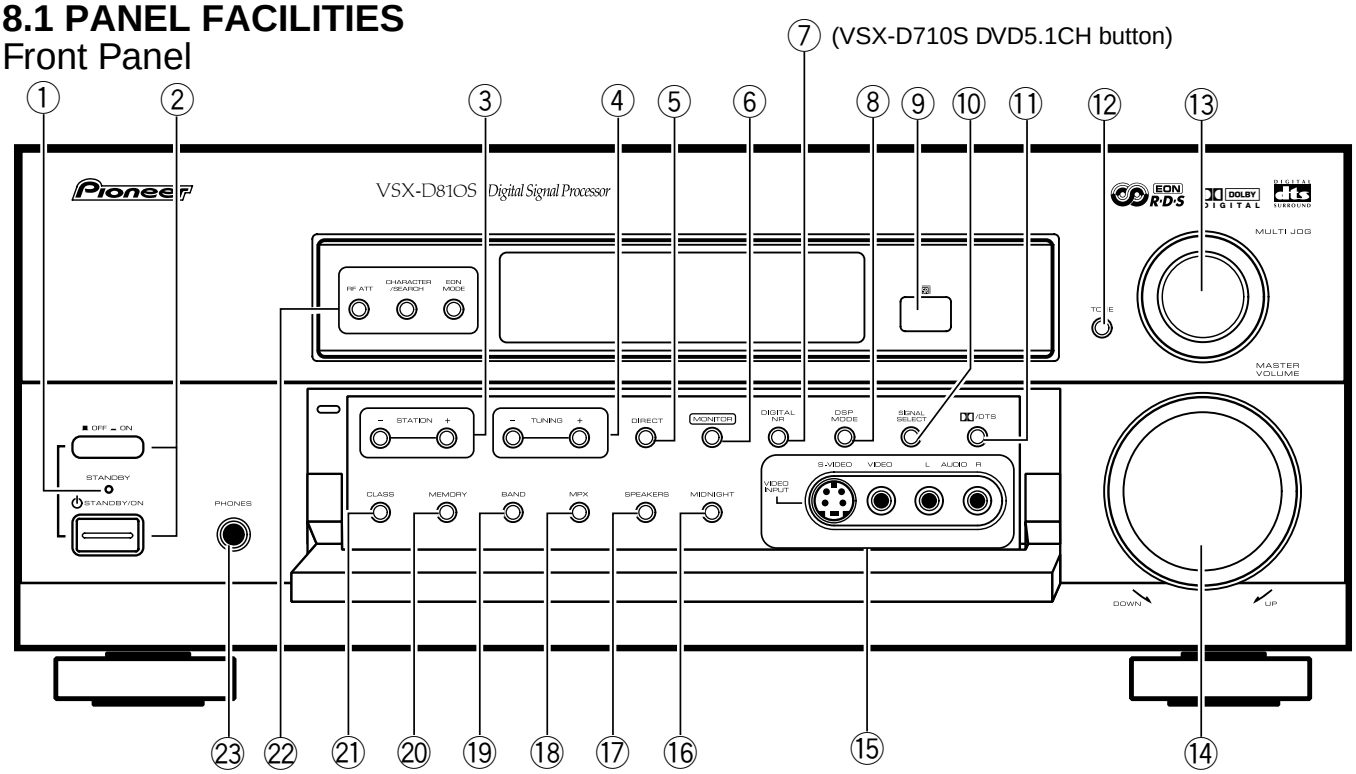
8. PANEL FACILITIES AND SPECIFICATIONS

8.1 PANEL FACILITIES

Front Panel



① **STANDBY indicator**
Lights when the receiver is in standby mode (note that the receiver consumes a small amount of power (1W) in standby mode).

② **■ OFF/ ▂ ON (Main power) button**
If the button is OFF (■), the power of the receiver is shut off and the ⏻ **STANDBY/ON** button on the receiver or the **RECEIVER** ⏻ button on the remote control do not function. Pressing the button again will turn the receiver ON (▂) and the receiver enters the standby mode. In the standby mode, you can turn on the receiver using ⏻ **STANDBY/ON** button on the receiver or the **RECEIVER** ⏻ button on the remote control.

⏻ **STANDBY/ON button**
Switches the receiver between on and standby (note that the receiver consumes a small amount of power (1W) in standby mode).

③ **STATION (+/–) buttons**
Selects station memories when using the tuner.

④ **TUNING (+/–) buttons**
Selects the frequency when using the tuner.

⑤ **DIRECT button**
Use to switch DIRECT playback on or off. This mode bypasses the tone controls, channel levels, DD/DTS and DSP modes for the most accurate reproduction of a program source.

⑥ **MONITOR button**
Press to switch tape monitoring on/off.

⑦ **DVD5.1CH button (VSX-D710S)**
On the VSX-D710S this button switche between DVD5.1Ch input and regular DVD input.

⑧ **DSP MODE button**
Use to switch between the various DSP modes available **(HALL1, HALL 2, JAZZ, DANCE, THEATER1, THEATER 2)** and **DSP off**. Use this button to create different surround sound effects from any stereo source.

⑨ **Remote sensor**
Receives the signals from the remote control.

⑩ **SIGNAL SELECT button**
Use to select an analog or digital signal.

⑪ **DD/DTS button**
Use to switch between the various DD/DTS surround modes.

⑫ **TONE button**
This button allows you to activate the BASS & TREBLE controls. To adjust the BASS and/or TREBLE use the MULTI JOG dial. Tone can only be used in 2 channel stereo sound mode. The tone controls have no effect on the B speaker system.

⑬ **MULTI JOG dial**
You can use this dial for two purposes. Firstly, in normal mode turn it to select a source component. Secondly, use it to adjust the BASS and/or TREBLE levels when the TONE button has been activated (as explained above).

⑭ **MASTER VOLUME**
Use to set the overall listening volume.

⑮ **VIDEO INPUT jacks**
Connect a video camera, video game system, etc. to the **VIDEO INPUT** jacks.

⑯ **MIDNIGHT button**
Use when listening to movie soundtracks at low volume. This feature will enable you to hear quiet sounds and not get jolted by loud or sudden sound effects.

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⑰ **SPEAKERS button**
Use to switch the speaker system **A** → **B** → **A+B** → **off**. In **B** and **A+B** speaker modes you hear only 2 channel stereo sound.

⑱ **MPX button**
If there is interference or noise during a FM radio broadcast, or the radio reception is weak, press the **MPX** button to switch the receiver into mono reception mode. This should improve the sound quality and allow you to enjoy the broadcast.

⑲ **BAND button**
Press to select the AM or FM band.

⑳ **MEMORY button**
Press to memorize a station for recall using the **STATION (+/–)** buttons.

㉑ **CLASS button**
Switches between the three banks (classes) of station memories.

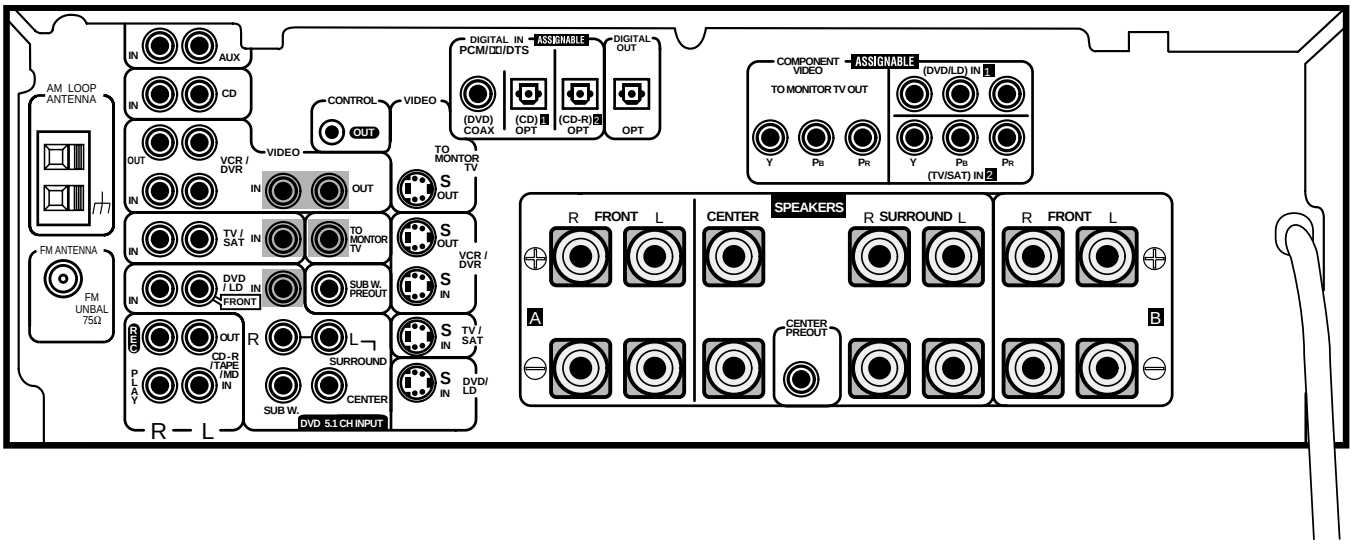
㉒ **RF ATT button**
Use to lower the input level of a radio signal that is too powerful or contains interference thus causing the receiver to distort

CHARACTER/SEARCH button
Use to search for different program types in RDS mode. It is also used to input station names.

EON MODE button
Use to search for different programs that are transmitting traffic or news information (this search method is called EON).

㉓ **PHONES jack**
Use to connect headphones but this does not switch the speakers off.

Rear Panel



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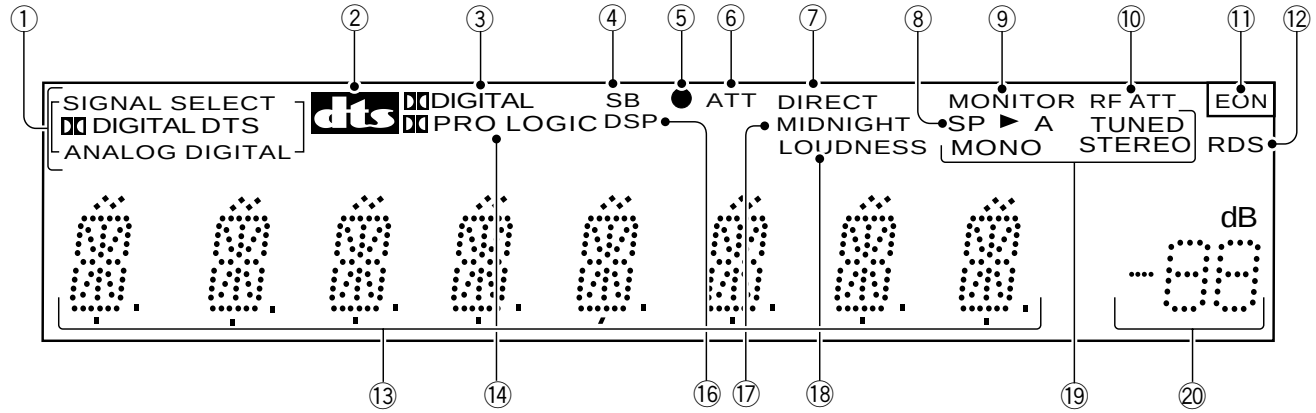
Display



① **SIGNAL SELECT indicators**
Light to indicate the type of input signal assigned for the current component (see "Front Panel", ⑩ SIGNAL SELECT).
DIGITAL : Lights when a Dolby Digital signal is played.
DTS: Lights when a source with DTS audio signals is played.
ANALOG : Lights when an analog signal is selected.
DIGITAL : Lights when a digital audio signal is selected.
[ ]: Lights when the AUTO setting is selected. (Not used for VSX-D710S)

② **DTS indicator**
Lights when DTS mode is being used.

③ **DIGITAL indicator**
When the (DOLBY)/DTS mode of the receiver is on, this lights to indicate playback of a Dolby Digital signal. However, **PRO LOGIC** lights during two channel playback of Dolby Digital.

④ **Surround Back indicator (Not used for VSX-D710S)**
Lights when most Surround Back channel flag encoded (6.1channel) software is playing. (With some Surround Back channel software the surround back indicator won't light because there is no flag encoded in the software.) If you play DTS 5.1/6.1 channel software surround sound will be heard whether it is encoded with a surround back channel flag or not.

⑤ **OVERLOAD indicator**
This lights when an analog signal is too high (the **SIGNAL SELECT** would have to be on ANALOG). It indicates the sound is distorting and the input signal should be reduced.

⑥ **ATT indicator**
Lights when ATT is used to attenuate (reduce) the level of the input signal (can only be used in ANALOG mode).

⑦ **DIRECT indicator**
Lights when source DIRECT is in use. This function bypasses all tone, balance, DSP and Dolby Surround effects.

⑧ **SPEAKER indicator**
Shows if the speaker system is on or not. SP ►A means that speakers are switched on. SP ► means that speakers are switched off.

⑨ **MONITOR indicator**
Lights when **MONITOR** is selected. Used to hear a recording as it's being made.

⑩ **RF ATT indicator**
Lights when the **RF ATT** is on.

⑪ **EON indicator**
The box around **EON** indicator lights to inform you that the currently tuned station carries the EON data service. When the EON mode is set, the **EON** indicator light's, but during actual reception of an EON broadcast the **EON** indicator will flash. An empty box in the **EON** indicator spot means it is possible to pick up an EON broadcast but the receiver has not been set to do so (this will only appear when RDS is switched on).

⑫ **RDS indicator**
Lights when an RDS broadcast is received.

⑬ **CHARACTER display**
Shows the radio frequency or function (DVD/LD, CD, etc.) receiver is using .

⑭ **PRO LOGIC indicator**
When the /DTS mode of the receiver is on, this lights to indicate playback of a two channel source.

⑯ **DSP indicator**
Lights when any "Advanced Theater" or "DSP" mode is selected.

⑰ **MIDNIGHT indicator**
Lights when MIDNIGHT listening mode is in use.

⑱ **LOUDNESS indicator**
Lights when the LOUDNESS is on. Use to boost the bass and treble at low volume.

⑲ **TUNER indicators**
MONO:
Lights when the mono mode is set using the **MPX** button.
TUNED:
Lights when a broadcast is being received.
STEREO:
Lights when a stereo FM broadcast is being received in auto stereo mode.

⑳ **MASTER VOLUME LEVEL**
Shows the overall volume level. Volume level is maintained even when the power is off. **---dB** indicates the minimum level, and **0dB** indicates the maximum level.

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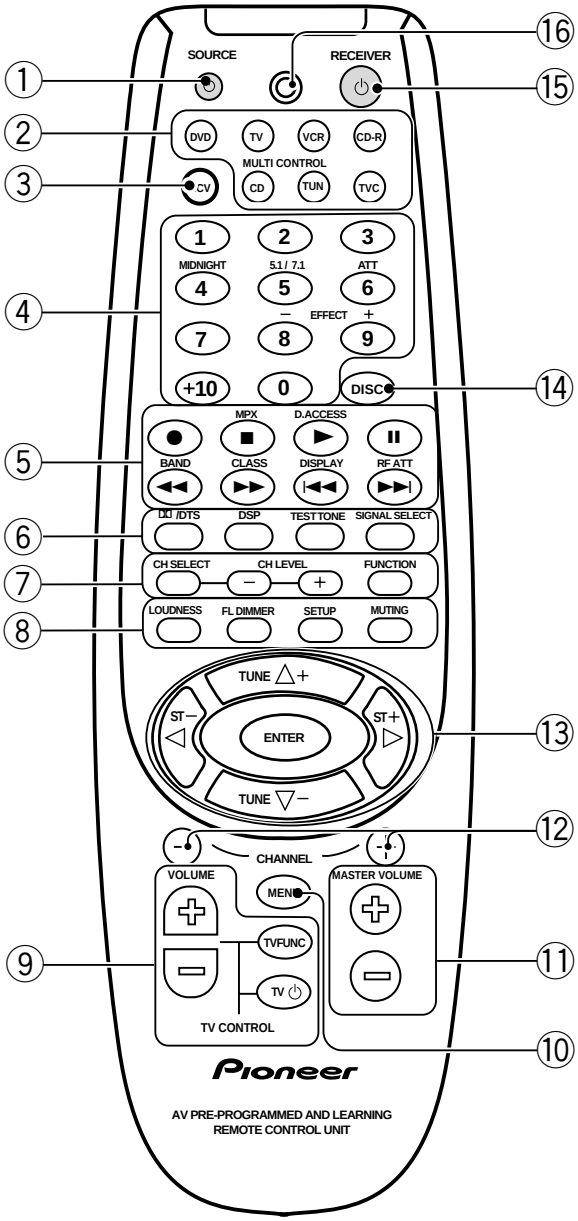
Remote Control



① **SOURCE ⏻ button**
Use to turn on/off other components connected to the receiver.

② **MULTI CONTROL buttons**
Use to put the receiver/remote control in the stated mode.
For other equipment controls, see “Controlling the Rest of Your System”.

③ **RCV button**
Use this button when setting up the surround sound for the receiver. Also press it if you want to use special features attached to some of the number buttons, for example MIDNIGHT, 5.1/7.1, EFFECT +/– or ATT.

④ **NUMBER/MODE buttons**
Use the number buttons to select the radio frequency in tuner DIRECT ACCESS mode or the tracks in CD, DVD mode etc.
Also, buttons marked with the following names have special functions. If you try to use one of these functions but the display flashes it means that function cannot be used in the current mode (for example DSP modes cannot be used when 5.1 Ch setting is on).

MIDNIGHT button
Use to put receiver in **MIDNIGHT** mode. To use first press the **RCV** button then operate this button.

5.1/7.1 button
(VSX-D710S is 5.1 Ch)
When the DVD/LD or DVD 5.1/7.1 Ch function is selected each press switches the DVD/LD input between DVD/LD and DVD 5.1/7.1 Ch. To use first press the **RCV** button then operate this button.

ATT button
When the overload indicator lights use this button to attenuate (lower) the level of an analog input signal and prevent distortion. To use first press the **RCV** button then operate this button.

EFFECT +/– buttons
Use to add or subtract the amount of effect in different DSP sound modes (except 6 Ch Stereo) or advanced listening modes.
To use first press the **RCV** button then operate these buttons.

⑤ **THE FOLLOWING BUTTONS ARE BOTH CONTROLS FOR OTHER COMPONENTS (LIKE A DVD PLAYER) AND DEDICATED TUNER CONTROLS. THE TUNER CONTROLS ARE EXPLAINED HERE. YOU CAN USE THEM AFTER YOU HAVE PUSHED THE TUNER MULTI CONTROL BUTTON.**

BAND button
Use to switch between the AM and FM band when in TUNER mode.

CLASS button
Use to switch between the three banks (classes) of station memories.

MPX button
Use to switch between auto stereo and mono reception of FM broadcasts. If the signal is weak then switching to MONO will improve the sound quality.

D. ACCESS button
Use to directly access a radio station by pressing the number of the station you want.

DISPLAY button
Use to display the RDS information.

RF ATT button
Use to lower the input level of a radio signal that is too powerful or contain interference thus causing the receiver to distort.

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⑥ **/DTS button**
Use to put the receiver in DOLBY DIGITAL, DOLBY SURROUND and DTS modes. To use first press the **RCV** button then operate this button.
DSP button
Use to put receiver in one of the DSP modes. To use first press the **RCV** button then operate this button.
TEST TONE button
Use to sound the TEST TONE when setting up the surround sound of the receiver (the /DTS mode must be on). To use first press the **RCV** button then operate this button.
SIGNAL SELECT
Use to select the proper signal (analog, digital) for the source your are inputting.

⑦ **CH SELECT button**
Use to select a speaker when setting up the surround sound of the receiver.
CH LEVEL +/–
Use to set up the levels of the surround sound of the receiver.
FUNCTION button
Use to select the playback or recording source. This button lets you cycle through the different functions of the receiver in the following order: CD, TUNER, AUX, CDR/TAPE, VCR/DVR, DVD/LD, VIDEO, and TV/SAT.

⑧ **LOUDNESS button**
Use to switch on the loudness. This feature is useful for getting good bass and treble sounds listening at low volumes.
FL DIMMER button
Use this button to make the fluorescent display (FL) dimmer or brighter. There are three brightness settings as well as an off setting.
SETUP button
Use this button when setting up the remote control to control other components.
MUTING button
Use to mute the sound or restore the sound if it has been muted.

⑨ **THE FOLLOWING BUTTONS ARE DEDICATED TV CONTROL BUTTONS. THEY ARE ONLY USED FOR CONTROLLING YOUR TV.**
TV FUNC button
Use to select the TV function.
TV ⏻ button
Use to turn on/off the power of the TV.
TV VOLUME +/– buttons
Use to adjust the volume on your TV.

⑩ **MENU button**
Use to access different menus associated with your DVD player. To use first press the **DVD** button then operate this button.

⑪ **MASTER VOLUME +/– buttons**
Use to set the overall listening volume.

⑫ **CHANNEL +/– buttons**
Use to skip tracks backward or forward on CDs, DVDs, etc and change channels on the VCR, DVR, etc.

⑬ ◁ ▷ △ ▽ **(TUNE/ST +/–) & ENTER buttons**
Use these arrow buttons when setting up your surround sound system. These buttons are also used to control DVD menus/options and for deck 1 of a double cassette deck player. The TUNE/ST +/– buttons can be used to find radio frequencies and preset stations, respectively .

⑭ **DISC button**
Use to select a disc and a multi-CD player. To use first press the **CD** button then operate this button.

⑮ **RECEIVER ⏻ (POWER) button**
This switches between STANDBY mode and power ON for this receiver.

⑯ **LED DISPLAY**
This display flashes when a command is sent from the remote control to the receiver. It also flashes at other times, for example when teaching the receiver preset codes, with specific meanings.

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8.2 SPECIFICATIONS

Amplifier Section

Continuous Power Output (STEREO MODE)
FRONT ..... 100 W + 100 W (DIN 1 kHz, THD 1 %, 8 Ω)

Continuous Power Output (SURROUND MODE)
FRONT ..... 100 W/ch (1 kHz, THD 1 %, 8 Ω)
CENTER ..... 100 W (1 kHz, THD 1 %, 8 Ω)
SURROUND ..... 100 W/ch (1 kHz, THD 1 %, 8 Ω)

- Above specifications are applicable when the power supply is 230V.

Input (Sensitivity/Impedance)
CD, AUX, VCR/DVR, CD-R/TAPE/MD, DVD/LD, TV/SAT, VIDEO ..... 200 mV/47 kΩ
Frequency Response
CD, AUX, VCR/DVR, CD-R/TAPE/MD, DVD/LD, TV/SAT, VIDEO ..... 5 Hz to 100,000 Hz $^{+0}_{-3}$ dB
Output (Level/Impedance)
VCR/DVR OUT, CD-R/TAPE/MD REC ..... 200 mV/2.2 kΩ
Tone Control
BASS ..... ± 6 dB (100 Hz)
TREBLE ..... ± 6 dB (10 kHz)
LOUDNESS ..... +9 dB (100 Hz/10 kHz)

Signal-to-Noise Ratio
[DIN (Continuous rated power output/50 mW)]
CD, AUX, VCR/DVR, CD-R/TAPE/MD, DVD/LD, TV/SAT, VIDEO .....88 dB/64 dB

VIDEO Section

Input (Sensitivity/Impedance)
VCR/DVR, DVD/LD, TV/SAT ..... 1 Vp-p/75 Ω
Output (Level/Impedance)
VCR/DVR, TO MONITOR TV OUT ..... 1 Vp-p/75 Ω
Frequency Response
VCR/DVR, DVD/LD, TV/SAT → MONITOR ..... 5 Hz to 7 MHz $^{+0}_{-3}$ dB
Signal-to-Noise Ratio ..... 55 dB

COMPONENT VIDEO Section

Input (Sensitivity/Impedance)
DVD/LD, TV/SAT ..... 1 Vp-p/75 Ω
Output (Level/Impedance)
TO MONITOR TV OUT ..... 1 Vp-p/75 Ω

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FM Tuner Section

Frequency Range ..... 87.5 MHz to 108 MHz
Usable Sensitivity ..... Mono:13.2 dBf, IHF (1.3 µV/ 75 Ω)
50 dB Quieting Sensitivity ..... Mono: 20.2 dBf
Stereo: 38.6 dBf
Signal-to-Noise Ratio ..... Mono: 73 dB (at 85 dBf)
Stereo: 70 dB (at 85 dBf)
Signal-to-Noise Ratio (DIN) ..... Mono: 62 dB
Stereo: 58 dB
Distortion ..... Stereo: 0.5 % (1 kHz)
Alternate Channel Selectivity ..... 60 dB (400 kHz)
Stereo Separation ..... 40 dB (1 kHz)
Frequency Response ..... 30 Hz to 15 kHz (±1dB)
Antenna Input (DIN) ..... 75 Ω unbalanced

AM Tuner Section

Frequency Range ..... 531 kHz to 1,602 kHz
Sensitivity (IHF, Loop antenna) ..... 350 µV/m
Selectivity ..... 30 dB
Signal-to-Noise Ratio ..... 50 dB
Antenna ..... Loop antenna

Miscellaneous

Power Requirements
UK model ..... AC 230 V, 50/60 Hz
European model ..... AC 220 – 230 V, 50/60 Hz
Power Consumption
VSX-D710S ..... 250 W
In Standby ..... 1 W
Dimensions ..... 420 (W) x 158 (H) x 401 (D) mm
Weight (without package)
VSX-D710S .....9.5 kg

Furnished Parts

AM loop antenna 1
FM wire antenna 1
Dry cell batteries (AA size IEC R6P) 2
Remote control 1
Operating instructions 1

NOTE:
- Specifications and the design are subject to possible modifications without notice, due to improvements.

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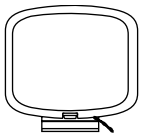
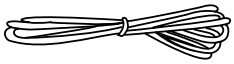
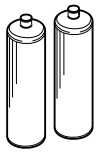
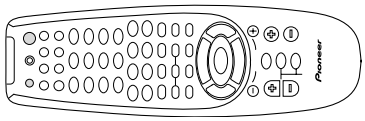
Accessories


AM loop antenna
(ATB7009)


FM wire antenna
(ADH7005)


AA size IEC R6P
Dry cell batteries (x2)



Remote control unit
(XXD3029)

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